

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

|                             |            |
|-----------------------------|------------|
| <b>C Number:</b>            | C56393B    |
| <b>Lock Date:</b>           | 10/02/1992 |
| <b>Cage Range:</b>          | All        |
| <b>Date Range:</b>          | All        |
| <b>Reasons For Removal:</b> | All        |
| <b>Removal Date Range:</b>  | All        |
| <b>Treatment Groups:</b>    | All        |
| <b>Study Gender:</b>        | Both       |
| <b>PWG Approval Date</b>    | 03/21/1996 |

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 689

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-001

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                      |                          |                           |
|-----------------------------|----------------------|--------------------------|---------------------------|
| * Adrenal Cortex            | * Blood Vessel       | * Bone                   | * Bone Marrow             |
| * Brain                     | * Epididymis         | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Islets, Pancreatic | * Mammary Gland          | * Nose                    |
| * Parathyroid Gland         | * Preputial Gland    | * Prostate               | * Salivary Glands         |
| * Seminal Vesicle           | * Stomach, Glandular |                          |                           |

MISSING

|             |                          |
|-------------|--------------------------|
| * Esophagus | * Lymph Node, Mandibular |
|-------------|--------------------------|

AUTO PRECLUDES DIAG.

|                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

|                           |   |                         |          |
|---------------------------|---|-------------------------|----------|
| * Adrenal Medulla         | Bilateral   | Pheochromocytoma Benign |          |
| * Heart                   |   | Leukemia Mononuclear    |          |
| * Kidney                  |   | Leukemia Mononuclear    |          |
|                           |   | Nephropathy             | Mild     |
| * Larynx                  |   | Leukemia Mononuclear    |          |
| * Liver                   |   | Basophilic Focus        | Minimal  |
|                           |   | Leukemia Mononuclear    |          |
| * Lung                    |   | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 11-13 ]   |                         |          |
| * Lymph Node, Bronchial   |   | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 12-3 ]  |                         |          |
| * Lymph Node, Mediastinal |   | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 6-5 ]   |                         |          |
| * Lymph Node, Mesenteric  |   | Leukemia Mononuclear    |          |
| * Pancreas                |   | Leukemia Mononuclear    |          |
| * Parathyroid Gland       |   |                         |          |
|                           | Note: The parathyroid is enlarged due to mononuclear cell leukemia. That diagnosis is not available, however. |                         |          |
| * Pituitary Gland         | Pars Distalis   | Adenoma                 | Multiple |
|                           | [ Adenoma TGLS = 10-1 ]   |                         |          |
| * Skin                    | Subcut Tiss   | Leukemia Mononuclear    |          |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

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|                     |                      |                            |                           |
|---------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 1 | <b>TRT#:</b> 1       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 689   |
|                     | <b>DOSE:</b> CONTROL | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-001 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                |                      |          |
|---|----------------|----------------------|----------|
| [ Leukemia Mononuclear TGLS = 1-15,2-16 ] |                |                      |          |
| * Spleen                                  |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 7-5 ]       |                |                      |          |
| * Stomach, Forestomach                    |                | Leukemia Mononuclear |          |
| * Testes                                  | Bilateral      | Atrophy              | Moderate |
|   | Interstit Cell | Hyperplasia          | Minimal  |
| [ Atrophy TGLS = 8-9 ]                    |                |                      |          |
| * Thymus                                  |                | Leukemia Mononuclear |          |
| * Thyroid Gland                           |                | Leukemia Mononuclear |          |
| * Trachea                                 |                | Leukemia Mononuclear |          |
| * Urinary Bladder                         |                | Leukemia Mononuclear |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

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Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

|                     |  |   |  |
|---------------------|--|---|--|
| <b>ANIMAL ID:</b> 2 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 710<br><b>HISTO:</b> 90-5201-002 |
|---------------------|--|---|--|

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             |
| * Parathyroid Gland      | * Prostate                 | * Salivary Glands         | * Thyroid Gland             |
| * Trachea                |                            |                           |                             |

OBSERVATIONS

- |                                       |           |   |                  |
|---------------------------------------|-----------|---|------------------|
| * Adrenal Cortex                      |           | Leukemia Mononuclear<br>Vacuolization Cytoplasmic   | Moderate         |
| * Adrenal Medulla                     | Bilateral | Leukemia Mononuclear<br>Pheochromocytoma Benign     |                  |
| * Bone Marrow                         |           | Leukemia Mononuclear                                |                  |
| * Brain                               |           | Leukemia Mononuclear                                |                  |
| * Heart                               | Atrium    | Leukemia Mononuclear<br>Thrombosis                  | Moderate         |
| [ Thrombosis TGLS = 4-4 ]             |           |   |                  |
| * Kidney                              |           | Leukemia Mononuclear<br>Nephropathy<br>Pigmentation | Moderate<br>Mild |
| * Larynx                              |           | Leukemia Mononuclear                                |                  |
| * Liver                               |           | Leukemia Mononuclear                                |                  |
| [ Leukemia Mononuclear TGLS = 7,8-5 ] |           |   |                  |
| * Lung                                |           | Leukemia Mononuclear                                |                  |
| Lymph Node                            | Renal     | Leukemia Mononuclear                                |                  |
| [ Leukemia Mononuclear TGLS = 13-14 ] |           |   |                  |
| * Lymph Node, Bronchial               |           | Leukemia Mononuclear                                |                  |
| [ Leukemia Mononuclear TGLS = 17-3 ]  |           |   |                  |
| * Lymph Node, Mandibular              |           | Leukemia Mononuclear                                |                  |
| [ Leukemia Mononuclear TGLS = 1-2 ]   |           |   |                  |
| * Lymph Node, Mediastinal             |           | Leukemia Mononuclear                                |                  |
| [ Leukemia Mononuclear TGLS = 3-5 ]   |           |   |                  |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

|                     |  |   |  |
|---------------------|--|---|--|
| <b>ANIMAL ID:</b> 2 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 710<br><b>HISTO:</b> 90-5201-002 |
|---------------------|--|---|--|

ORGAN AND ACCOUNTABLE SITE STATUS

|  |                           |                                     |          |
|--|---------------------------|-------------------------------------|----------|
| * Lymph Node, Mesenteric<br>[ Leukemia Mononuclear TGLS = 14,15-8 ]  |                           | Leukemia Mononuclear                |          |
| * Mammary Gland<br>Note: The mammary gland also has leukemic cells infiltrating it. No diagnosis possible. |                           |                                     |          |
| * Nose   |                           | Leukemia Mononuclear                |          |
| * Pancreas   |                           | Leukemia Mononuclear                |          |
| * Pituitary Gland<br>[ Leukemia Mononuclear TGLS = 16-1 ]  | Pars Distalis             | Leukemia Mononuclear                |          |
| * Preputial Gland  |                           | Inflammation                        | Marked   |
| * Seminal Vesicle  |                           | Leukemia Mononuclear                |          |
| * Skin   |                           | Leukemia Mononuclear                |          |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 5-5 ]<br>[ Necrosis TGLS = 6-5 ]                                 |                           | Leukemia Mononuclear<br>Necrosis    | Moderate |
| * Stomach, Forestomach   |                           | Hyperplasia<br>Leukemia Mononuclear | Mild     |
|  |                           | Ulcer                               | Marked   |
| * Stomach, Glandular   |                           | Leukemia Mononuclear                |          |
| * Testes<br>[ Adenoma TGLS = 12-9 ]<br>[ Atrophy TGLS = 10,11-9 ]  | Bilateral, Interstit Cell | Adenoma<br>Atrophy                  | Moderate |
| * Thymus   |                           | Leukemia Mononuclear                |          |
| * Urinary Bladder  |                           | Leukemia Mononuclear                |          |

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

|                     |  |   |  |
|---------------------|--|---|--|
| <b>ANIMAL ID:</b> 3 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 602<br><b>HISTO:</b> 90-5201-003 |
|---------------------|--|---|--|

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Nose                   |
| * Preputial Gland          | * Salivary Glands         | * Seminal Vesicle           | * Skin                   |
| * Spleen                   | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

OBSERVATIONS

|                            |                   |                           |                  |
|----------------------------|-------------------|---------------------------|------------------|
| * Adrenal Cortex           |                   | Vacuolization Cytoplasmic | Mild             |
| * Heart                    |                   | Cardiomyopathy            | Minimal          |
| * Kidney                   |                   | Nephropathy               | Mild             |
| [ Nephropathy TGLS = 3-7 ] |                   |                           |                  |
| * Liver                    |                   | Inflammation              | Chronic, Minimal |
|                            |                   | Vacuolization Cytoplasmic | Minimal          |
| * Lymph Node, Mediastinal  |                   | Hemorrhage                | Mild             |
|                            |                   | Pigmentation              | Mild             |
| * Mammary Gland            |                   | Galactocele               | Mild             |
| * Pancreas                 | Acinus            | Hyperplasia               | Mild             |
| * Parathyroid Gland        |                   | Hyperplasia               | Minimal          |
| [ Hyperplasia TGLS = 1-3 ] |                   |                           |                  |
| * Pituitary Gland          | Pars Distalis     | Adenoma                   |                  |
| [ Adenoma TGLS = 4-1 ]     |                   |                           |                  |
| * Prostate                 |                   | Inflammation              | Moderate         |
| * Stomach, Forestomach     |                   | Ulcer                     | Moderate         |
| * Testes                   | Interstitial Cell | Adenoma                   |                  |

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 4

TRT#: 1

SEX: Male

DAY ON TEST: 640

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-004

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                      |                          |                             |
|----------------------------|----------------------|--------------------------|-----------------------------|
| * Blood Vessel             | * Bone               | * Bone Marrow            | * Brain                     |
| * Epididymis               | * Esophagus          | * Intestine Large, Colon | * Intestine Small, Duodenum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx                 | * Lymph Node, Mandibular    |
| * Mammary Gland            | * Nose               | * Parathyroid Gland      | * Preputial Gland           |
| * Prostate                 | * Salivary Glands    | * Seminal Vesicle        | * Skin                      |
| * Stomach, Forestomach     | * Thyroid Gland      | * Trachea                | * Urinary Bladder           |

OBSERVATIONS

|                                      |       |                      |              |
|--------------------------------------|-------|----------------------|--------------|
| * Adrenal Cortex                     |       | Leukemia Mononuclear |              |
| * Adrenal Medulla                    |       | Leukemia Mononuclear |              |
| * Heart                              |       | Leukemia Mononuclear |              |
| * Intestine Large, Cecum             |       | Leukemia Mononuclear |              |
| * Intestine Large, Rectum            |       | Leukemia Mononuclear |              |
| * Intestine Small, Ileum             |       | Leukemia Mononuclear |              |
| * Kidney                             |       | Infarct              | Mild         |
|                                      |       | Leukemia Mononuclear |              |
|                                      |       | Pigmentation         | Moderate     |
| [ Infarct TGLS = 4-13 ]              |       |                      |              |
| * Liver                              |       | Degeneration         | Cystic, Mild |
|                                      |       | Leukemia Mononuclear |              |
| [ Leukemia Mononuclear TGLS = 3-5 ]  |       |                      |              |
| * Lung                               |       | Leukemia Mononuclear |              |
| Lymph Node                           | Iliac | Leukemia Mononuclear |              |
| [ Leukemia Mononuclear TGLS = 6-14 ] |       |                      |              |
| * Lymph Node, Bronchial              |       | Leukemia Mononuclear |              |
| * Lymph Node, Mediastinal            |       | Leukemia Mononuclear |              |
| [ Leukemia Mononuclear TGLS = 5-5 ]  |       |                      |              |
| * Lymph Node, Mesenteric             |       | Leukemia Mononuclear |              |
| * Pancreas                           |       | Leukemia Mononuclear |              |
| * Pituitary Gland                    |       | Leukemia Mononuclear |              |
| * Spleen                             |       | Leukemia Mononuclear |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:32

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 4

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 640

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-004

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 2-5 ]

\* Stomach, Glandular

Necrosis

Minimal

\* Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 1-9 ]

\* Thymus

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

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|                     |                      |                                 |                           |
|---------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 5 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 609   |
|                     | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-005 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Epididymis               | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Liver                     | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mesenteric  |
| * Nose                      | * Pancreas               | * Preputial Gland          | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

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**MISSING**

|          |                          |                 |                     |
|----------|--------------------------|-----------------|---------------------|
| * Larynx | * Lymph Node, Mandibular | * Mammary Gland | * Parathyroid Gland |
|----------|--------------------------|-----------------|---------------------|

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**OBSERVATIONS**

|  |                |             |          |
|--|----------------|-------------|----------|
| * Kidney<br>[ Nephropathy TGLS = 1-7 ]   |                | Nephropathy | Moderate |
| * Larynx<br>Note: The larynx is present, but the section is in the wrong place for evaluation. |                |             |          |
| * Lymph Node, Mediastinal  |                | Hemorrhage  | Mild     |
| * Pituitary Gland<br>[ Adenoma TGLS = 3-1 ]  | Pars Distalis  | Adenoma     |          |
| * Testes   | Interstit Cell | Hyperplasia | Minimal  |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

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Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

|                     |  |   |  |
|---------------------|--|---|--|
| <b>ANIMAL ID:</b> 6 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 713<br><b>HISTO:</b> 90-5201-006 |
|---------------------|--|---|--|

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  | * Lung                      |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           | * Pancreas                  |
| * Prostate               | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Spleen                 | * Thymus                   | * Trachea                 | * Urinary Bladder           |

OBSERVATIONS

|                                  |                           |                           |          |
|----------------------------------|---------------------------|---------------------------|----------|
| * Heart                          |                           | Cardiomyopathy            | Minimal  |
| * Islets, Pancreatic             |                           | Adenoma                   |          |
| * Kidney                         |                           | Nephropathy               | Moderate |
| [ Nephropathy TGLS = 4-7 ]       |                           |                           |          |
| * Liver                          |                           | Basophilic Focus          | Mild     |
| [ Basophilic Focus TGLS = 3-13 ] |                           | Vacuolization Cytoplasmic | Mild     |
| * Lymph Node, Bronchial          |                           | Pigmentation              | Minimal  |
| * Lymph Node, Mediastinal        |                           | Hemorrhage                | Mild     |
|                                  |                           | Pigmentation              | Mild     |
| * Nose                           | Respirat Epith            | Hyperplasia               | Mild     |
|                                  |                           | Inflammation              | Moderate |
| * Parathyroid Gland              |                           | Hyperplasia               | Moderate |
| [ Hyperplasia TGLS = 8-3 ]       |                           |                           |          |
| * Pituitary Gland                | Pars Distalis             | Adenoma                   |          |
| [ Adenoma TGLS = 5-1 ]           |                           |                           |          |
| * Preputial Gland                |                           | Inflammation              | Moderate |
| * Stomach, Forestomach           |                           | Hyperplasia               | Mild     |
|                                  |                           | Ulcer                     | Marked   |
| * Stomach, Glandular             |                           | Mineralization            | Mild     |
| * Testes                         | Bilateral, Interstit Cell | Adenoma                   |          |
|                                  |                           | Atrophy                   | Moderate |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                     |                      |                                 |                           |
|---------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 6 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 713   |
|                     | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-006 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 1-9 ]

[ Atrophy TGLS = 2-9 ]

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

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Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

|                     |  |   |  |
|---------------------|--|---|--|
| <b>ANIMAL ID:</b> 7 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Terminal Sacrifice | <b>DAY ON TEST:</b> 734<br><b>HISTO:</b> 90-5201-007 |
|---------------------|--|---|--|

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Pancreas                | * Prostate                  | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

OBSERVATIONS

|                           |                            |                         |              |
|---------------------------|----------------------------|-------------------------|--------------|
| * Adrenal Medulla         | Bilateral                  | Pheochromocytoma Benign |              |
| * Heart                   |                            | Cardiomyopathy          | Mild         |
| * Kidney                  | Transit Epithe             | Hyperplasia             | Minimal      |
|                           |                            | Nephropathy             | Moderate     |
|                           | [ Nephropathy TGLS = 4-7 ] |                         |              |
| * Liver                   |                            | Degeneration            | Cystic, Mild |
| * Lymph Node, Mediastinal |                            | Hemorrhage              | Mild         |
|                           |                            | Pigmentation            | Minimal      |
| * Parathyroid Gland       |                            | Hyperplasia             | Minimal      |
|                           | [ Hyperplasia TGLS = 3-3 ] |                         |              |
| * Pituitary Gland         | Pars Distalis              | Adenoma                 |              |
|                           | Pars Intermed              | Angiectasis             | Moderate     |
|                           | [ Adenoma TGLS = 2-1 ]     |                         |              |
| * Preputial Gland         |                            | Inflammation            | Mild         |
| * Spleen                  |                            | Congestion              | Moderate     |
| * Testes                  | Bilateral, Interstit Cell  | Adenoma                 |              |
|                           |                            | Hemorrhage              | Mild         |
|                           | [ Adenoma TGLS = 1-9 ]     |                         |              |

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 8

TRT#: 1

SEX: Male

DAY ON TEST: 547

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-008

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                            |                           |                             |
|---------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow             | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum  | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum  | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Liver                   | * Lung                     | * Lymph Node, Bronchial   | * Lymph Node, Mandibular    |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric   | * Nose                    | * Pancreas                  |
| * Parathyroid Gland       | * Preputial Gland          | * Salivary Glands         | * Seminal Vesicle           |
| * Skin                    | * Spleen                   | * Testes                  | * Thymus                    |
| * Thyroid Gland           | * Trachea                  | * Urinary Bladder         |                             |

OBSERVATIONS

|   |               |                |          |
|---|---------------|----------------|----------|
| * Brain   |               |                |          |
| Note: The pituitary tumor caused a depression in the brain. |               |                |          |
| * Heart   |               | Cardiomyopathy | Minimal  |
| * Kidney  |               | Nephropathy    | Mild     |
| [ Nephropathy TGLS = 3-7 ]                                  |               |                |          |
| * Mammary Gland   |               | Galactocele    | Moderate |
| * Pituitary Gland   | Pars Distalis | Adenoma        |          |
| [ Adenoma TGLS = 1-1 ]                                      |               |                |          |
| * Prostate  |               | Inflammation   | Mild     |
| * Sem Ves   |               |                |          |
| Note: The seminal vesicles are depleted of secretion.       |               |                |          |
| * Stomach, Forestomach                                      |               | Ulcer          | Moderate |
| * Stomach, Glandular  |               | Inflammation   | Mild     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

|                     |  |   |  |
|---------------------|--|---|--|
| <b>ANIMAL ID:</b> 9 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 479<br><b>HISTO:</b> 90-5201-009 |
|---------------------|--|---|--|

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Liver                     |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Lymph Node, Mesenteric | * Mammary Gland            | * Nose                    | * Pancreas                  |
| * Parathyroid Gland      | * Preputial Gland          | * Salivary Glands         | * Seminal Vesicle           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Testes                 | * Thymus                   | * Thyroid Gland           | Tissue NOS                  |
| * Trachea                | * Urinary Bladder          |                           |                             |

MISSING

\* Larynx

OBSERVATIONS

|  |               |                |          |
|--|---------------|----------------|----------|
| * Heart  |               | Cardiomyopathy | Mild     |
| * Kidney   |               | Nephropathy    | Mild     |
| * Larynx   |               |                |          |
| Note: Larynx is present, but not in the proper location for adequate evaluation. |               |                |          |
| * Pituitary Gland  | Pars Distalis | Adenoma        |          |
| [ Adenoma TGLS = 1-1 ]   |               |                |          |
| * Prostate   |               | Inflammation   | Moderate |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-010

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Epididymis               | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Pancreas               | * Salivary Glands          | * Seminal Vesicle         |
| * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          |                           |

OBSERVATIONS

|   |   |  |                      |
|---|---|--|----------------------|
| * Kidney<br>[ Nephropathy TGLS = 3-7 ]  |   | Nephropathy                              | Moderate             |
| * Liver   |   | Basophilic Focus<br>Leukemia Mononuclear | Minimal              |
| * Lung<br>[ Alveolar/Bronchiolar Carcinoma TGLS = 5-13 ]  |   | Alveolar/Bronchiolar Carcinoma           |                      |
| * Lymph Node, Mediastinal   |   | Pigmentation                             | Minimal              |
| * Nose  |   | Inflammation                             | Minimal              |
| * Parathyroid Gland<br>[ Hyperplasia TGLS = 4-3 ]   |   | Hyperplasia                              | Minimal              |
| * Pituitary Gland<br>[ Adenoma TGLS = 6-1 ]<br>[ Angiectasis TGLS = 6-1 ]<br>[ Hyperplasia TGLS = 6-1 ] | Pars Distalis<br>Pars Distalis<br>Pars Distalis | Adenoma<br>Angiectasis<br>Hyperplasia    | Moderate<br>Moderate |
| * Preputial Gland   |   | Inflammation                             | Mild                 |
| * Prostate  |   | Inflammation                             | Mild                 |
| * Spleen<br>[ Fibrosis TGLS = 2-14 ]  |   | Fibrosis<br>Leukemia Mononuclear         | Moderate             |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 10 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 734   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-010 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                    |                           |         |
|------------------------------------|---------------------------|---------|
| * Testes<br>[ Adenoma TGLS = 1-9 ] | Bilateral, Interstit Cell | Adenoma |
|------------------------------------|---------------------------|---------|

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 11

TRT#: 1

SEX: Male

DAY ON TEST: 644

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-011

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                      |                 |
|---------------------------|-----------------------------|----------------------|-----------------|
| * Blood Vessel            | * Bone                      | * Epididymis         | * Esophagus     |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic | * Larynx        |
| * Nose                    | * Prostate                  | * Salivary Glands    | * Thyroid Gland |
| * Trachea                 |                             |                      |                 |

MISSING

|                 |                     |
|-----------------|---------------------|
| * Mammary Gland | * Parathyroid Gland |
|-----------------|---------------------|

AUTO PRECLUDES DIAG.

|                          |                            |
|--------------------------|----------------------------|
| * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

|                          |  |   |                 |
|--------------------------|--|---|-----------------|
| * Adrenal Cortex         |  | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Minimal         |
| * Adrenal Medulla        |  | Leukemia Mononuclear                              |                 |
| * Bone Marrow            |  | Leukemia Mononuclear                              |                 |
| * Brain                  |  | Leukemia Mononuclear                              |                 |
| * Heart                  |  | Leukemia Mononuclear                              |                 |
| * Intestine Large, Cecum |  | Leukemia Mononuclear                              |                 |
| * Intestine Large, Colon |  | Leukemia Mononuclear                              |                 |
| * Kidney                 |  | Leukemia Mononuclear<br>Nephropathy               | Minimal         |
| * Liver                  |  | Degeneration<br>Leukemia Mononuclear              | Cystic, Minimal |
|                          | [ Leukemia Mononuclear TGLS = 10-5 ]     |   |                 |
| * Lung                   |  | Leukemia Mononuclear                              |                 |
| Lymph Node               | Deep Cervical                            | Leukemia Mononuclear                              |                 |
|                          | Lumbar                                   | Leukemia Mononuclear                              |                 |
|                          | Renal                                    | Leukemia Mononuclear                              |                 |
|                          | Thoracic                                 | Leukemia Mononuclear                              |                 |
|                          | [ Leukemia Mononuclear TGLS = 17-19 ]    |   |                 |
|                          | [ Leukemia Mononuclear TGLS = 12,13-16 ] |   |                 |
|                          | [ Leukemia Mononuclear TGLS = 2,3-17 ]   |   |                 |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

|                      |                      |                            |                           |
|----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 11 | <b>TRT#:</b> 1       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 644   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-011 |

**ORGAN AND ACCOUNTABLE SITE STATUS**

|  |                |                      |          |
|--|----------------|----------------------|----------|
| [ Leukemia Mononuclear TGLS = 11-15 ]  |                |                      |          |
| * Lymph Node, Bronchial                |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 4,5-14 ] |                |                      |          |
| * Lymph Node, Mandibular               |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 1-2 ]    |                |                      |          |
| * Lymph Node, Mediastinal              |                | Leukemia Mononuclear |          |
| * Lymph Node, Mesenteric               |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 18-8 ]   |                |                      |          |
| * Pancreas                             | Acinus         | Atrophy              | Mild     |
|  |                | Leukemia Mononuclear |          |
| * Pituitary Gland                      |                | Leukemia Mononuclear |          |
| * Preputial Gland                      |                | Leukemia Mononuclear |          |
| * Seminal Vesicle                      |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 14-18 ]  |                |                      |          |
| * Skin                                 |                | Leukemia Mononuclear |          |
| * Spleen                               |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 8,9-5 ]  |                |                      |          |
| * Stomach, Forestomach                 |                | Hyperplasia          | Moderate |
|  |                | Leukemia Mononuclear |          |
| * Stomach, Glandular                   |                | Necrosis             | Mild     |
| [ Necrosis TGLS = 19-20 ]              |                |                      |          |
| * Testes                               | Interstit Cell | Adenoma              |          |
|  |                | Atrophy              | Mild     |
|  | Interstit Cell | Hyperplasia          | Minimal  |
| [ Adenoma TGLS = 16-9 ]                |                |                      |          |
| [ Atrophy TGLS = 15-9 ]                |                |                      |          |
| * Thymus                               |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 6-13 ]   |                |                      |          |
| * Urinary Bladder                      |                | Leukemia Mononuclear |          |

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 652

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-012

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Mammary Gland          | * Nose                     | * Parathyroid Gland       | * Seminal Vesicle           |
| * Skin                   | * Stomach, Glandular       | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

OBSERVATIONS

|                           |                                       |                      |                   |
|---------------------------|---------------------------------------|----------------------|-------------------|
| * Adrenal Cortex          |                                       | Leukemia Mononuclear |                   |
| * Adrenal Medulla         |                                       | Hyperplasia          | Mild              |
| * Bone Marrow             |                                       | Leukemia Mononuclear |                   |
| * Brain                   |                                       | Necrosis             | Mild              |
| * Heart                   | Atrium                                | Leukemia Mononuclear |                   |
|                           |                                       | Thrombosis           | Moderate          |
|                           | [ Thrombosis TGLS = 14-4 ]            |                      |                   |
| * Kidney                  |                                       | Infarct              | Mild              |
|                           |                                       | Leukemia Mononuclear |                   |
|                           |                                       | Nephropathy          | Mild              |
|                           |                                       | Pigmentation         | Mild              |
|                           | [ Infarct TGLS = 4-7,16 ]             |                      |                   |
| * Liver                   |                                       | Leukemia Mononuclear |                   |
|                           | [ Leukemia Mononuclear TGLS = 5-5 ]   |                      |                   |
| * Lung                    |                                       | Leukemia Mononuclear |                   |
| Lymph Node                | Lumbar                                | Leukemia Mononuclear |                   |
|                           | Pancreatic                            | Leukemia Mononuclear |                   |
|                           | [ Leukemia Mononuclear TGLS = 7-13 ]  |                      |                   |
|                           | [ Leukemia Mononuclear TGLS = 10-14 ] |                      |                   |
| * Lymph Node, Bronchial   |                                       | Leukemia Mononuclear |                   |
| * Lymph Node, Mandibular  |                                       | Leukemia Mononuclear |                   |
| * Lymph Node, Mediastinal |                                       | Hyperplasia          | Plasma Cell, Mild |
|                           |                                       | Leukemia Mononuclear |                   |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 12 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 652   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-012 |

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                                      |                           |                      |          |
|--------------------------------------|---------------------------|----------------------|----------|
| [ Leukemia Mononuclear TGLS = 3-15 ] |                           |                      |          |
| * Lymph Node, Mesenteric             |                           | Leukemia Mononuclear |          |
| * Pancreas                           | Acinus                    | Atrophy              | Mild     |
| * Pituitary Gland                    | Pars Distalis             | Adenoma              |          |
|                                      | Pars Distalis             | Leukemia Mononuclear |          |
| [ Adenoma TGLS = 11,12-1.1 ]         |                           |                      |          |
| * Preputial Gland                    |                           | Adenoma              |          |
| [ Adenoma TGLS = 2-17 ]              |                           |                      |          |
| * Prostate                           |                           | Inflammation         | Marked   |
|                                      |                           | Leukemia Mononuclear |          |
| [ Inflammation TGLS = 13-18 ]        |                           |                      |          |
| * Salivary Glands                    |                           | Leukemia Mononuclear |          |
| * Spleen                             |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 6-5 ]  |                           |                      |          |
| * Stomach, Forestomach               |                           | Leukemia Mononuclear |          |
| * Testes                             | Bilateral, Interstit Cell | Adenoma              |          |
|                                      | Bilateral                 | Atrophy              | Moderate |
| [ Adenoma TGLS = 9-9 ]               |                           |                      |          |
| [ Atrophy TGLS = 8-9 ]               |                           |                      |          |
| * Thymus                             |                           | Leukemia Mononuclear |          |

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 692

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-013

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Larynx                  | * Lymph Node, Mandibular    | * Lymph Node, Mesenteric | * Mammary Gland            |
| * Nose                    | * Pancreas                  | * Parathyroid Gland      | * Prostate                 |
| * Salivary Glands         | * Seminal Vesicle           | * Skin                   | * Stomach, Glandular       |
| * Thymus                  | * Thyroid Gland             | * Trachea                | * Urinary Bladder          |

OBSERVATIONS

|                           |  |                      |          |
|---------------------------|--|----------------------|----------|
| * Adrenal Medulla         |  | Hyperplasia          | Mild     |
| * Bone Marrow             |  | Leukemia Mononuclear |          |
|                           |  | Myelofibrosis        | Moderate |
| * Heart                   | Atrium   | Thrombosis           | Moderate |
|                           | [ Thrombosis TGLS = 2-4 ]  |                      |          |
| * Islets, Pancreatic      |  | Adenoma              |          |
| * Kidney                  |  | Nephropathy          | Mild     |
|                           |  | Pigmentation         | Mild     |
| * Liver                   |  | Leukemia Mononuclear |          |
|                           | Note: There is regenerative hyperplasia associated with the mononuclear cell leukemia. |                      |          |
|                           | [ Leukemia Mononuclear TGLS = 4-5 ]  |                      |          |
| * Lung                    |  | Leukemia Mononuclear |          |
| * Lymph Node, Bronchial   |  | Hemorrhage           | Minimal  |
| * Lymph Node, Mediastinal |  | Edema                | Moderate |
|                           |  | Hemorrhage           | Moderate |
|                           | [ Edema TGLS = 1-5 ]   |                      |          |
|                           | [ Hemorrhage TGLS = 1-5 ]  |                      |          |
| * Pituitary Gland         | Pars Distalis  | Hyperplasia          | Minimal  |
| * Preputial Gland         |  | Inflammation         | Mild     |
| * Sem Ves                 |  |                      |          |
|                           | Note: The seminal vesicles are depleted of secretion.                                  |                      |          |
| * Spleen                  |  | Leukemia Mononuclear |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 13 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 692   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-013 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |                           |             |      |
|-------------------------------------|---------------------------|-------------|------|
| [ Leukemia Mononuclear TGLS = 3-5 ] |                           |             |      |
| * Stomach, Forestomach              |                           | Hyperplasia | Mild |
| * Testes                            | Bilateral, Interstit Cell | Adenoma     |      |
| [ Adenoma TGLS = 6,7-9 ]            |                           |             |      |

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:32

**First Dose M/F:** NA / NA

**Lab:** IIT

**ANIMAL ID:** 14

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 661

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-014

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Nose                    |
| * Pancreas                  | * Parathyroid Gland      | * Pituitary Gland          | * Preputial Gland         |
| * Prostate                  | * Salivary Glands        | * Seminal Vesicle          | * Skin                    |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Trachea                 |
| * Urinary Bladder           |                          |                            |                           |

**OBSERVATIONS**

|                           |                |  |                            |
|---------------------------|----------------|--|----------------------------|
| * Adrenal Cortex          |                | Vacuolization Cytoplasmic                        | Minimal                    |
| * Adrenal Medulla         |                | Pheochromocytoma Benign                          |                            |
| * Bone Marrow             |                | Hyperplasia                                      | Mild                       |
|                           |                | Myelofibrosis                                    | Mild                       |
| * Heart                   |                | Cardiomyopathy                                   | Mild                       |
| * Kidney                  | Transit Epithe | Hyperplasia                                      | Mild                       |
|                           |                | Nephropathy                                      | Mild                       |
|                           |                | Pigmentation                                     | Moderate                   |
| * Liver                   |                | Degeneration                                     | Moderate                   |
|                           |                | Vacuolization Cytoplasmic                        | Mild                       |
|                           |                | [ Degeneration TGLS = 3-5 ]                      |                            |
|                           |                | [ Vacuolization Cytoplasmic TGLS = 3-5 ]         |                            |
| * Lung                    |                | Carcinoma  | Metastatic (Thyroid Gland) |
|                           |                | Infiltration Cellular                            | Histiocyte, Moderate       |
| * Lymph Node, Mediastinal |                | Infiltration Cellular                            | Histiocyte, Moderate       |
| * Lymph Node, Mesenteric  |                | Hemorrhage                                       | Minimal                    |
| * Mammary Gland           |                | Galactocele                                      | Mild                       |
| * Spleen                  |                | Hematopoietic Cell Proliferation                 | Marked                     |
|                           |                | [ Hematopoietic Cell Proliferation TGLS = 1-13 ] |                            |
| * Testes                  | Interstit Cell | Adenoma  |                            |
|                           |                | Atrophy  | Moderate                   |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |  |   |  |
|----------------------|--|---|--|
| <b>ANIMAL ID:</b> 14 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 661<br><b>HISTO:</b> 90-5201-014 |
|----------------------|--|---|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                              |                              |      |
|---|------------------------------|------------------------------|------|
| [ Adenoma TGLS = 4-9 ]<br>[ Atrophy TGLS = 5-9 ]<br>* Thyroid Gland<br>[ Carcinoma TGLS = 6-3 ] | Interstit Cell<br><br>C Cell | Hyperplasia<br><br>Carcinoma | Mild |
|---|------------------------------|------------------------------|------|

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-015

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Epididymis               | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Nose                   | * Parathyroid Gland        | * Preputial Gland         | * Prostate                  |
| * Salivary Glands        | * Seminal Vesicle          | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |

OBSERVATIONS

|                                 |                           |                  |              |
|---------------------------------|---------------------------|------------------|--------------|
| * Adrenal Cortex                |                           | Degeneration     | Cystic, Mild |
| * Kidney                        |                           | Nephropathy      | Mild         |
| * Liver                         |                           | Basophilic Focus | Minimal      |
| * Lymph Node, Bronchial         |                           | Pigmentation     | Minimal      |
| * Mammary Gland                 |                           | Galactoceles     | Minimal      |
| [ Galactoceles TGLS = 3-8 ]     |                           |                  |              |
| * Pancreas                      | Acinus                    | Atrophy          | Mild         |
| * Pituitary Gland               | Pars Distalis             | Adenoma          |              |
| [ Adenoma TGLS = 5-1 ]          |                           |                  |              |
| * Skin                          |                           | Hyperkeratosis   | Mild         |
| [ Keratoacanthoma TGLS = 1-13 ] |                           | Keratoacanthoma  |              |
| * Testes                        | Bilateral, Interstit Cell | Adenoma          |              |
| [ Adenoma TGLS = 4-9 ]          |                           |                  |              |
| * Thyroid Gland                 | C Cell                    | Adenoma          |              |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-016

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Liver                  |
| * Lymph Node, Bronchial    | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Pancreas                | * Parathyroid Gland         | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

OBSERVATIONS

|                              |                           |              |                       |
|------------------------------|---------------------------|--------------|-----------------------|
| * Adrenal Medulla            |                           | Hyperplasia  | Minimal               |
| * Bone Marrow                |                           | Hemorrhage   | Mild                  |
| * Kidney                     |                           | Lipoma       |                       |
|                              |                           | Necrosis     | Mild                  |
|                              |                           | Nephropathy  | Minimal               |
| * Lung                       | Alveolar Epith            | Hyperplasia  | Mild                  |
| * Lymph Node, Mandibular     |                           | Hyperplasia  | Plasma Cell, Moderate |
| [ Hyperplasia TGLS = 6-2 ]   |                           |              |                       |
| * Pituitary Gland            | Pars Distalis             | Adenoma      | Multiple              |
|                              | Pars Distalis             | Pigmentation | Mild                  |
| [ Adenoma TGLS = 4-1 ]       |                           |              |                       |
| * Preputial Gland            |                           | Inflammation | Marked                |
| [ Inflammation TGLS = 1-10 ] |                           |              |                       |
| * Testes                     | Bilateral, Interstit Cell | Adenoma      |                       |
| [ Adenoma TGLS = 2,3-9 ]     |                           |              |                       |
| * Thyroid Gland              | C Cell                    | Hyperplasia  | Mild                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 689

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-017

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Nose                   | * Preputial Gland          |
| * Salivary Glands         | * Seminal Vesicle           | * Skin                   | * Stomach, Forestomach     |
| * Thymus                  | * Thyroid Gland             | * Trachea                |                            |

OBSERVATIONS

|                           |  |                         |          |
|---------------------------|--|-------------------------|----------|
| * Adrenal Medulla         | Bilateral                                | Pheochromocytoma Benign |          |
| * Bone Marrow             |  | Hyperplasia             | Mild     |
|                           |  | Myelofibrosis           | Moderate |
| * Heart                   |  | Cardiomyopathy          | Moderate |
| * Kidney                  | Transit Epithe                           | Hyperplasia             | Minimal  |
|                           |  | Nephropathy             | Marked   |
|                           | [ Nephropathy TGLS = 6-7 ]               |                         |          |
| * Larynx                  | Respirat Epith                           | Hyperplasia             | Mild     |
| * Liver                   |  | Basophilic Focus        | Minimal  |
|                           |  | Eosinophilic Focus      | Minimal  |
|                           |  | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 3-5;4-14 ] |                         |          |
| Lymph Node                | Renal                                    | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 11-16 ]    |                         |          |
| * Lymph Node, Bronchial   |  | Hemorrhage              | Mild     |
| * Lymph Node, Mandibular  |  | Pigmentation            | Mild     |
| * Lymph Node, Mediastinal |  | Leukemia Mononuclear    |          |
| * Lymph Node, Mesenteric  |  | Leukemia Mononuclear    |          |
| * Mammary Gland           |  | Inflammation            | Mild     |
| Mesentery                 | Fat                                      | Necrosis                | Moderate |
|                           | [ Necrosis TGLS = 9-15 ]                 |                         |          |
| Oral Mucosa               | Pharyngeal                               | Squamous Cell Papilloma |          |
|                           | [ Squamous Cell Papilloma TGLS = 13-17 ] |                         |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:32

**First Dose M/F:** NA / NA

**Lab:** IIT

**ANIMAL ID:** 17

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 689

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-017

**ORGAN AND ACCOUNTABLE SITE STATUS**

|  |                                |                        |                     |
|--|--------------------------------|------------------------|---------------------|
| * Pancreas   | Acinus                         | Atrophy                | Mild                |
| * Parathyroid Gland<br>[ Hyperplasia TGLS = 5-3 ]    |                                | Hyperplasia            | Marked              |
| * Pituitary Gland<br>[ Angiectasis TGLS = 12-1 ]     | Pars Distalis                  | Angiectasis            | Marked              |
| * Prostate   |                                | Inflammation           | Moderate            |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 1-5;2-13 ] |                                | Leukemia Mononuclear   |                     |
| * Stomach, Glandular                                 |                                | Mineralization         | Mild                |
| * Testes<br>[ Atrophy TGLS = 7-9 ]                   | Bilateral<br>Interstitial Cell | Atrophy<br>Hyperplasia | Moderate<br>Minimal |
| * Urinary Bladder                                    |                                | Inflammation           | Mild                |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-018

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Bone Marrow            | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Larynx                  | * Lymph Node, Bronchial     | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Nose                      | * Parathyroid Gland      | * Preputial Gland          |
| * Prostate                | * Salivary Glands           | * Seminal Vesicle        | * Skin                     |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |                            |

OBSERVATIONS

|                                 |                           |                           |                 |
|---------------------------------|---------------------------|---------------------------|-----------------|
| * Adrenal Cortex                |                           | Vacuolization Cytoplasmic | Minimal         |
| * Adrenal Medulla               |                           | Hyperplasia               | Mild            |
| * Heart                         |                           | Cardiomyopathy            | Minimal         |
| * Islets, Pancreatic            |                           | Hyperplasia               | Mild            |
| * Kidney                        |                           | Nephropathy               | Mild            |
| * Liver                         |                           | Clear Cell Focus          | Minimal         |
|                                 |                           | Degeneration              | Cystic, Minimal |
|                                 |                           | Mixed Cell Focus          | Mild            |
|                                 |                           | Vacuolization Cytoplasmic | Minimal         |
| [ Mixed Cell Focus TGLS = 2-5 ] |                           |                           |                 |
| * Lung                          | Alveolar Epith            | Hyperplasia               | Minimal         |
| * Lymph Node, Mediastinal       |                           | Hemorrhage                | Moderate        |
| * Pancreas                      | Acinus                    | Atrophy                   | Mild            |
| * Pituitary Gland               | Pars Distalis             | Adenoma                   |                 |
|                                 | Pars Distalis             | Hyperplasia               | Mild            |
| [ Adenoma TGLS = 5-1 ]          |                           |                           |                 |
| * Testes                        | Bilateral, Interstit Cell | Adenoma                   |                 |
| [ Adenoma TGLS = 3-9 ]          |                           |                           |                 |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 590

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-019

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|
| * Blood Vessel           | * Bone                   | * Brain                  | * Epididymis             |
| * Esophagus              | * Intestine Large, Colon | * Intestine Small, Ileum | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric | * Mammary Gland          | * Nose                   | * Parathyroid Gland      |
| * Pituitary Gland        | * Preputial Gland        | * Salivary Glands        | * Seminal Vesicle        |
| * Skin                   | * Stomach, Forestomach   | * Stomach, Glandular     | * Thyroid Gland          |
| * Trachea                | * Urinary Bladder        |                          |                          |

MISSING

\* Thymus

AUTO PRECLUDES DIAG.

|                          |                           |                             |                            |
|--------------------------|---------------------------|-----------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
|--------------------------|---------------------------|-----------------------------|----------------------------|

OBSERVATIONS

|   |                |                |                     |
|---|----------------|----------------|---------------------|
| * Adrenal Cortex<br>[ Osteosarcoma TGLS = 11-3 ]  |                | Osteosarcoma   | Metastatic (Spleen) |
| * Adrenal Medulla<br>[ Osteosarcoma TGLS = 11-3 ] |                | Osteosarcoma   | Metastatic (Spleen) |
| * Bone Marrow                                     |                | Hyperplasia    | Minimal             |
| * Heart   |                | Cardiomyopathy | Mild                |
| * Islets, Pancreatic                              |                | Carcinoma      |                     |
| * Kidney  | Renal Tubule   | Hyperplasia    | Marked              |
|   |                | Nephropathy    | Minimal             |
| * Larynx  | Respirat Epith | Metaplasia     | Squamous, Mild      |
| * Liver   |                | Degeneration   | Cystic, Minimal     |
|   |                | Osteosarcoma   | Metastatic (Spleen) |
| [ Osteosarcoma TGLS = 7,8,9,10-5,14 ]             |                |                |                     |
| * Lung  | Mediastinum    | Osteosarcoma   | Metastatic (Spleen) |
|   |                | Osteosarcoma   | Metastatic (Spleen) |
| [ Osteosarcoma TGLS = 2-3,16 ]                    |                |                |                     |
| [ Osteosarcoma TGLS = 1-6 ]                       |                |                |                     |
| * Lymph Node, Bronchial                           |                | Hemorrhage     | Moderate            |
| * Lymph Node, Mediastinal                         |                | Hemorrhage     | Moderate            |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |  |  |  |
|----------------------|--|--|--|
| <b>ANIMAL ID:</b> 19 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Natural Death | <b>DAY ON TEST:</b> 590<br><b>HISTO:</b> 90-5201-019 |
|----------------------|--|--|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                  |                |              |                     |
|----------------------------------|----------------|--------------|---------------------|
| [ Hemorrhage TGLS = 3-5 ]        |                |              |                     |
| * Pancreas                       | Acinus         | Atrophy      | Minimal             |
| * Prostate                       |                | Inflammation | Mild                |
| Skeletal Muscle                  |                | Osteosarcoma | Metastatic (Spleen) |
| [ Osteosarcoma TGLS = 13-15 ]    |                |              |                     |
| * Spleen                         |                | Osteosarcoma |                     |
| [ Osteosarcoma TGLS = 4,5,6-13 ] |                |              |                     |
| * Testes                         | Interstit Cell | Hyperplasia  | Minimal             |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-020

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Bronchial    |
| * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Mammary Gland            |
| * Nose                    | * Salivary Glands           | * Seminal Vesicle        | * Skin                     |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Trachea                 | * Urinary Bladder           |                          |                            |

OBSERVATIONS

|                     |                                   |                         |                  |
|---------------------|-----------------------------------|-------------------------|------------------|
| * Adrenal Medulla   | Bilateral                         | Pheochromocytoma Benign |                  |
| * Bone Marrow       |                                   | Hyperplasia             | Minimal          |
| * Heart             |                                   | Cardiomyopathy          | Mild             |
| * Kidney            | Transit Epithe                    | Hyperplasia             | Minimal          |
|                     |                                   | Nephropathy             | Mild             |
|                     | [ Nephropathy TGLS = 9-7 ]        |                         |                  |
| * Liver             |                                   | Degeneration            | Cystic, Moderate |
|                     |                                   | Eosinophilic Focus      | Mild             |
|                     | [ Degeneration TGLS = 4-5 ]       |                         |                  |
|                     | [ Eosinophilic Focus TGLS = 8-5 ] |                         |                  |
| * Pancreas          | Acinus                            | Atrophy                 | Mild             |
| * Parathyroid Gland |                                   | Hyperplasia             | Mild             |
| * Pituitary Gland   | Pars Distalis                     | Hyperplasia             | Mild             |
| * Preputial Gland   |                                   | Adenoma                 |                  |
|                     | [ Adenoma TGLS = 1-10 ]           |                         |                  |
| * Prostate          |                                   | Hyperplasia             | Minimal          |
| * Testes            | Bilateral, Interstit Cell         | Adenoma                 |                  |
|                     | [ Adenoma TGLS = 2,6-9 ]          |                         |                  |
| * Thyroid Gland     | Follicle                          | Cyst                    | Moderate         |
|                     | [ Cyst TGLS = 5-3 ]               |                         |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-021

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mesenteric | * Parathyroid Gland        | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

OBSERVATIONS

|                           |                                     |                           |                   |
|---------------------------|-------------------------------------|---------------------------|-------------------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear      |                   |
|                           |                                     | Vacuolization Cytoplasmic | Mild              |
| * Adrenal Medulla         |                                     | Hyperplasia               | Mild              |
|                           |                                     | Leukemia Mononuclear      |                   |
| * Bone Marrow             |                                     | Leukemia Mononuclear      |                   |
| * Heart                   |                                     | Leukemia Mononuclear      |                   |
| * Kidney                  |                                     | Leukemia Mononuclear      |                   |
|                           |                                     | Nephropathy               | Minimal           |
|                           | [ Leukemia Mononuclear TGLS = 6-7 ] |                           |                   |
|                           | [ Nephropathy TGLS = 6-7 ]          |                           |                   |
| * Liver                   |                                     | Leukemia Mononuclear      |                   |
|                           | [ Leukemia Mononuclear TGLS = 5-5 ] |                           |                   |
| * Lung                    |                                     | Leukemia Mononuclear      |                   |
| * Lymph Node, Bronchial   |                                     | Leukemia Mononuclear      |                   |
| * Lymph Node, Mandibular  |                                     | Hyperplasia               | Plasma Cell, Mild |
| * Lymph Node, Mediastinal |                                     | Leukemia Mononuclear      |                   |
| * Mammary Gland           |                                     | Fibroadenoma              |                   |
|                           | [ Fibroadenoma TGLS = 1-13 ]        |                           |                   |
| * Nose                    |                                     | Foreign Body              | Mild              |
|                           | Goblet Cell                         | Hyperplasia               | Mild              |
|                           |                                     | Inflammation              | Mild              |
| * Pancreas                | Acinus                              | Atrophy                   | Moderate          |
| * Pituitary Gland         | Pars Distalis                       | Adenoma                   |                   |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |  |   |  |
|----------------------|--|---|--|
| <b>ANIMAL ID:</b> 21 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Terminal Sacrifice | <b>DAY ON TEST:</b> 734<br><b>HISTO:</b> 90-5201-021 |
|----------------------|--|---|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                                  |                           |          |
|---|----------------------------------|---------------------------|----------|
| [ Adenoma TGLS = 8-1 ]                    |                                  |                           |          |
| * Preputial Gland                         |                                  | Inflammation              | Moderate |
| * Skin                                    |                                  | Cyst Epithelial Inclusion | Marked   |
| [ Cyst Epithelial Inclusion TGLS = 2-14 ] |                                  |                           |          |
| * Spleen                                  |                                  | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 4-15 ]      |                                  |                           |          |
| * Testes                                  | Interstit Cell<br>Interstit Cell | Adenoma<br>Hyperplasia    | Minimal  |
| [ Adenoma TGLS = 7-9 ]                    |                                  |                           |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 668

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-022

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mesenteric   | * Nose                    | * Pancreas                  |
| * Preputial Gland        | * Prostate                 | * Salivary Glands         | * Seminal Vesicle           |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |                             |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                                     |               |                           |              |
|-------------------------------------|---------------|---------------------------|--------------|
| * Adrenal Cortex                    |               | Vacuolization Cytoplasmic | Mild         |
| * Adrenal Medulla                   | Bilateral     | Pheochromocytoma Benign   |              |
| * Bone Marrow                       |               | Leukemia Mononuclear      |              |
| * Brain                             |               | Necrosis                  | Mild         |
| * Heart                             |               | Cardiomyopathy            | Mild         |
|                                     |               | Leukemia Mononuclear      |              |
| * Kidney                            |               | Leukemia Mononuclear      |              |
|                                     |               | Nephropathy               | Mild         |
|                                     |               | Pigmentation              | Mild         |
| * Liver                             |               | Degeneration              | Cystic, Mild |
|                                     |               | Leukemia Mononuclear      |              |
| [ Leukemia Mononuclear TGLS = 4-5 ] |               |                           |              |
| Lymph Node                          | Pancreatic    | Leukemia Mononuclear      |              |
| [ Leukemia Mononuclear TGLS = 2-2 ] |               |                           |              |
| * Lymph Node, Bronchial             |               | Leukemia Mononuclear      |              |
| * Lymph Node, Mandibular            |               | Leukemia Mononuclear      |              |
| * Lymph Node, Mediastinal           |               | Leukemia Mononuclear      |              |
| * Mammary Gland                     |               | Pigmentation              | Mild         |
| * Pituitary Gland                   | Pars Distalis | Hyperplasia               | Moderate     |
| * Spleen                            |               | Leukemia Mononuclear      |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 22 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 668   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-022 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|  |                           |           |
|--|---------------------------|-----------|
| [ Leukemia Mononuclear TGLS = 3,5-14 ] |                           |           |
| * Testes                               | Bilateral, Interstit Cell | Adenoma   |
| [ Adenoma TGLS = 6-9 ]                 |                           |           |
| Zymbal's Gland                         |                           | Carcinoma |
| [ Carcinoma TGLS = 1-13 ]              |                           |           |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 608

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-023

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Mammary Gland             | * Parathyroid Gland      | * Preputial Gland          | * Salivary Glands         |
| * Stomach, Forestomach      | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

MISSING

\* Larynx

OBSERVATIONS

|  |           |                         |              |
|--|-----------|-------------------------|--------------|
| * Adrenal Cortex   |           | Leukemia Mononuclear    |              |
| * Adrenal Medulla  | Bilateral | Pheochromocytoma Benign |              |
| * Bone Marrow  |           | Leukemia Mononuclear    |              |
| * Heart  |           | Leukemia Mononuclear    |              |
| * Kidney   |           | Leukemia Mononuclear    |              |
|  |           | Nephropathy             | Minimal      |
|  |           | Pigmentation            | Mild         |
| * Larynx   |           |                         |              |
| Note: The larynx is present, but the correct area for evaluation was not obtained. |           |                         |              |
| * Liver  |           | Degeneration            | Cystic, Mild |
|  |           | Leukemia Mononuclear    |              |
| * Lung   |           | Leukemia Mononuclear    |              |
| [ Leukemia Mononuclear TGLS = 2-6 ]  |           |                         |              |
| * Lymph Node, Bronchial  |           | Leukemia Mononuclear    |              |
| * Lymph Node, Mandibular   |           | Leukemia Mononuclear    |              |
| * Lymph Node, Mediastinal  |           | Leukemia Mononuclear    |              |
| [ Leukemia Mononuclear TGLS = 1-5 ]  |           |                         |              |
| * Lymph Node, Mesenteric   |           | Leukemia Mononuclear    |              |
| * Mammary GI   |           |                         |              |
| Note: The mammary gland is infiltrated with leukemia cells.                        |           |                         |              |
| * Nose   |           | Inflammation            | Marked       |
|  |           | Leukemia Mononuclear    |              |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 608

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-023

ORGAN AND ACCOUNTABLE SITE STATUS

|                      |  |                      |                    |
|----------------------|--|----------------------|--------------------|
|                      | Respirat Epith                             | Metaplasia           | Squamous, Moderate |
| * Pancreas           |  | Leukemia Mononuclear |                    |
| * Pituitary Gland    |  | Leukemia Mononuclear |                    |
| * Prostate           |  | Leukemia Mononuclear |                    |
| * Seminal Vesicle    |  | Leukemia Mononuclear |                    |
| * Skin               |  | Leukemia Mononuclear |                    |
| * Spleen             |  | Leukemia Mononuclear |                    |
|                      | [ Leukemia Mononuclear TGLS = 3-5 ]        |                      |                    |
| * Stomach, Glandular |  | Leukemia Mononuclear |                    |
|                      |  | Necrosis             | Mild               |
| * Testes             | Bilateral, Interstit Cell                  | Adenoma              |                    |
|                      | Bilateral                                  | Atrophy              | Marked             |
|                      | Note: One testis includes a spermatocoele. |                      |                    |
|                      | [ Atrophy TGLS = 4-9 ]                     |                      |                    |
| * Thymus             |  | Leukemia Mononuclear |                    |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 24

TRT#: 1

SEX: Male

DAY ON TEST: 553

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-024

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Liver                  |
| * Lung                     | * Lymph Node, Mandibular  | * Nose                      | * Parathyroid Gland      |
| * Preputial Gland          | * Prostate                | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Spleen                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

MISSING

|                         |          |
|-------------------------|----------|
| * Lymph Node, Bronchial | * Thymus |
|-------------------------|----------|

OBSERVATIONS

|   |               |                           |          |
|---|---------------|---------------------------|----------|
| * Adrenal Cortex                                      |               | Vacuolization Cytoplasmic | Mild     |
| * Brain   |               |                           |          |
| Note: The pituitary tumor has compressed the brain.   |               |                           |          |
| * Heart   |               | Cardiomyopathy            | Minimal  |
| * Kidney  |               | Nephropathy               | Marked   |
| [ Nephropathy TGLS = 1-7 ]                            |               |                           |          |
| * Lymph Node, Mediastinal                             |               | Hemorrhage                | Minimal  |
| * Lymph Node, Mesenteric                              |               | Hemorrhage                | Mild     |
| * Mammary Gland                                       |               | Galactocele               | Mild     |
| * Pancreas  | Acinus        | Atrophy                   | Mild     |
| * Pituitary Gland                                     | Pars Distalis | Adenoma                   |          |
| * Sem Ves   |               |                           |          |
| Note: The seminal vesicles are depleted of secretion. |               |                           |          |
| * Stomach, Forestomach                                |               | Hyperkeratosis            | Mild     |
|   |               | Inflammation              | Moderate |
|   |               | Ulcer                     | Mild     |
| [ Inflammation TGLS = 6-4 ]                           |               |                           |          |
| [ Ulcer TGLS = 6-4 ]                                  |               |                           |          |
| * Stomach, Glandular                                  |               | Inflammation              | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 24 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 553   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-024 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                      |           |         |          |
|--------------------------------------|-----------|---------|----------|
| * Testes<br>[ Atrophy TGLS = 4,5-9 ] | Bilateral | Atrophy | Moderate |
|--------------------------------------|-----------|---------|----------|

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 25

TRT#: 1

SEX: Male

DAY ON TEST: 528

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-025

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Liver                     | * Lung                   |
| * Lymph Node, Mesenteric   | * Parathyroid Gland       | * Prostate                  | * Salivary Glands        |
| * Seminal Vesicle          | * Spleen                  | * Stomach, Glandular        | * Testes                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |                          |

MISSING

|        |               |          |                         |
|--------|---------------|----------|-------------------------|
| * Bone | * Bone Marrow | * Larynx | * Lymph Node, Bronchial |
| * Nose | * Thymus      |          |                         |

OBSERVATIONS

|  |               |                 |          |
|--|---------------|-----------------|----------|
| * Brain  |               |                 |          |
| Note: The brain is markedly compressed by the pituitary tumor. |               |                 |          |
| * Kidney   |               | Nephropathy     | Mild     |
| * Lymph Node, Mandibular                                       |               | Hemorrhage      | Minimal  |
| * Lymph Node, Mediastinal                                      |               | Pigmentation    | Mild     |
| * Mammary Gland  |               | Galactocele     | Mild     |
| * Pancreas   | Acinus        | Atrophy         | Minimal  |
| * Pituitary Gland  | Pars Distalis | Adenoma         |          |
| [ Adenoma TGLS = 2-1 ]   |               |                 |          |
| * Preputial Gland  |               | Inflammation    | Moderate |
| * Skin   |               | Keratoacanthoma |          |
| [ Keratoacanthoma TGLS = 1-13 ]                                |               |                 |          |
| * Stomach, Forestomach   |               | Hyperplasia     | Mild     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-026

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                            |                          |
|---------------------------|-----------------------------|----------------------------|--------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel             | * Bone                   |
| * Brain                   | * Epididymis                | * Esophagus                | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic     |
| * Larynx                  | * Lymph Node, Bronchial     | * Parathyroid Gland        | * Prostate               |
| * Salivary Glands         | * Seminal Vesicle           | * Stomach, Forestomach     | * Stomach, Glandular     |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder          |                          |

MISSING

\* Pituitary Gland

OBSERVATIONS

|                           |                |                                       |                     |
|---------------------------|----------------|---------------------------------------|---------------------|
| * Bone Marrow             |                | Leukemia Mononuclear                  |                     |
| * Heart                   |                | Cardiomyopathy                        | Minimal             |
|                           |                | Leukemia Mononuclear                  |                     |
| * Intestine Large, Cecum  |                | Leukemia Mononuclear                  |                     |
| * Intestine Small, Ileum  |                | Leukemia Mononuclear                  |                     |
| * Kidney                  | Transit Epithe | Hyperplasia                           | Minimal             |
|                           |                | Leukemia Mononuclear                  |                     |
|                           |                | Nephropathy                           | Moderate            |
|                           |                | [ Nephropathy TGLS = 5-7 ]            |                     |
| * Liver                   |                | Degeneration                          | Cystic, Mild        |
|                           |                | Leukemia Mononuclear                  |                     |
|                           |                | [ Leukemia Mononuclear TGLS = 6-5 ]   |                     |
| * Lung                    |                | Inflammation                          | Granulomatous, Mild |
| Lymph Node                | Renal          | Leukemia Mononuclear                  |                     |
|                           |                | [ Leukemia Mononuclear TGLS = 11-15 ] |                     |
| * Lymph Node, Mandibular  |                | Leukemia Mononuclear                  |                     |
|                           |                | [ Leukemia Mononuclear TGLS = 13-2 ]  |                     |
| * Lymph Node, Mediastinal |                | Leukemia Mononuclear                  |                     |
|                           |                | [ Leukemia Mononuclear TGLS = 4-5 ]   |                     |
| * Lymph Node, Mesenteric  |                | Leukemia Mononuclear                  |                     |
|                           |                | [ Leukemia Mononuclear TGLS = 10-8 ]  |                     |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-026

ORGAN AND ACCOUNTABLE SITE STATUS

|  |   |                         |          |
|--|---|-------------------------|----------|
| * Mammary Gland                              |   | Hyperplasia             | Mild     |
| * Nose                                       |   | Foreign Body            | Minimal  |
|  | Goblet Cell                             | Hyperplasia             | Mild     |
| * Pancreas                                   | Acinus                                  | Atrophy                 | Minimal  |
| * Parathyroid Gland                          |   |                         |          |
| Note: TGLs = 3-3.1 = no corresponding lesion |   |                         |          |
| * Preputial Gland                            |   | Hyperplasia             | Mild     |
|  |   | Inflammation            | Mild     |
|  | [ Hyperplasia TGLS = 2-10 ]             |                         |          |
|  | [ Inflammation TGLS = 2-10 ]            |                         |          |
| * Skin                                       |   | Squamous Cell Papilloma |          |
|  | [ Squamous Cell Papilloma TGLS = 1-14 ] |                         |          |
| * Spleen                                     |   | Leukemia Mononuclear    |          |
| * Testes                                     | Bilateral, Interstit Cell               | Adenoma                 |          |
|  |   | Atrophy                 | Moderate |
|  | [ Adenoma TGLS = 8-9 ]                  |                         |          |
|  | [ Atrophy TGLS = 7-9 ]                  |                         |          |
| * Thymus                                     |   | Leukemia Mononuclear    |          |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 630

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-027

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                          |                           |                            |
|--------------------------|--------------------------|---------------------------|----------------------------|
| * Blood Vessel           | * Bone                   | * Brain                   | * Esophagus                |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Parathyroid Gland      | * Skin                    | * Thyroid Gland            |
| * Trachea                |                          |                           |                            |

OBSERVATIONS

- |  |                |                      |         |
|--|----------------|----------------------|---------|
| * Adrenal Cortex                       |                | Leukemia Mononuclear |         |
| * Adrenal Medulla                      |                | Leukemia Mononuclear |         |
| * Bone Marrow                          |                | Leukemia Mononuclear |         |
| * Epididymis                           |                | Leukemia Mononuclear |         |
| * Heart                                |                | Leukemia Mononuclear |         |
| * Intestine Small, Duodenum            |                | Leukemia Mononuclear |         |
| * Intestine Small, Ileum               |                | Leukemia Mononuclear |         |
| * Kidney                               |                | Leukemia Mononuclear |         |
| * Larynx                               |                | Leukemia Mononuclear |         |
| * Liver                                |                | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 6-5 ]    |                |                      |         |
| * Lung                                 |                | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 1-6 ]    |                |                      |         |
| Lymph Node                             | Pancreatic     | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 5-2 ]    |                |                      |         |
| * Lymph Node, Bronchial                |                | Leukemia Mononuclear |         |
| * Lymph Node, Mandibular               |                | Leukemia Mononuclear |         |
| * Lymph Node, Mediastinal              |                | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 2-5,13 ] |                |                      |         |
| * Lymph Node, Mesenteric               |                | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 9-8 ]    |                |                      |         |
| * Mammary Gland                        |                | Galactocele          | Mild    |
| * Nose                                 | Respirat Epith | Hyperplasia          | Minimal |
|  |                | Leukemia Mononuclear |         |
| * Pancreas                             |                | Leukemia Mononuclear |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 27 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 630   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-027 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                                       |                      |          |
|------------------------|---------------------------------------|----------------------|----------|
| * Pituitary Gland      |                                       | Leukemia Mononuclear |          |
| * Preputial Gland      |                                       | Inflammation         | Moderate |
|                        |                                       | Leukemia Mononuclear |          |
| * Prostate             |                                       | Leukemia Mononuclear |          |
| * Salivary Glands      |                                       | Leukemia Mononuclear |          |
| * Seminal Vesicle      |                                       | Leukemia Mononuclear |          |
| * Spleen               |                                       | Leukemia Mononuclear |          |
|                        | [ Leukemia Mononuclear TGLS = 3,4-5 ] |                      |          |
| * Stomach, Forestomach |                                       | Leukemia Mononuclear |          |
| * Stomach, Glandular   |                                       | Leukemia Mononuclear |          |
| * Testes               | Bilateral, Interstit Cell             | Adenoma              |          |
|                        | [ Adenoma TGLS = 7,8-9 ]              |                      |          |
| * Thymus               |                                       | Leukemia Mononuclear |          |
| * Urinary Bladder      |                                       | Leukemia Mononuclear |          |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 640

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-028

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Bone Marrow              |
| * Brain                   | * Epididymis                | * Esophagus              | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Nose                      | * Preputial Gland        | * Prostate                 |
| * Salivary Glands         | * Seminal Vesicle           | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Thymus                  | * Thyroid Gland             | * Trachea                | * Urinary Bladder          |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|   |               |                         |                  |
|---|---------------|-------------------------|------------------|
| * Adrenal Medulla                                     |               | Hyperplasia             | Minimal          |
| * Heart   | Atrium        | Thrombosis              | Marked           |
| [ Thrombosis TGLS = 7-4 ]                             |               |                         |                  |
| * Intestine Large, Cecum                              |               | Inflammation            | Marked           |
| * Kidney  |               | Nephropathy             | Mild             |
| * Liver   |               | Degeneration            | Cystic, Mild     |
|   |               | Leukemia Mononuclear    |                  |
|   |               | Necrosis                | Mild             |
|   |               | Pigmentation            | Minimal          |
| * Lung  |               | Edema                   | Moderate         |
|   |               | Infiltration Cellular   | Histiocyte, Mild |
| [ Edema TGLS = 5-6 ]                                  |               |                         |                  |
| [ Infiltration Cellular TGLS = 5-6 ]                  |               |                         |                  |
| * Lymph Node, Bronchial                               |               | Hemorrhage              | Minimal          |
| * Lymph Node, Mediastinal                             |               | Hemorrhage              | Mild             |
| * Pancreas  | Acinus        | Atrophy                 | Mild             |
| * Pituitary Gland                                     | Pars Distalis | Hyperplasia             | Moderate         |
| * Sem Ves   |               |                         |                  |
| Note: The seminal vesicles are depleted of secretion. |               |                         |                  |
| * Skin  |               | Squamous Cell Papilloma |                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 28 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 640   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-028 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                |                      |        |
|---|----------------|----------------------|--------|
| [ Squamous Cell Papilloma TGLS = 4-14 ] |                |                      |        |
| * Spleen                                |                | Leukemia Mononuclear |        |
| * Testes                                | Interstit Cell | Adenoma              |        |
|   |                | Atrophy              | Marked |
| [ Adenoma TGLS = 1-9 ]                  |                |                      |        |
| [ Atrophy TGLS = 3-9 ]                  |                |                      |        |

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 618

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-029

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Larynx                  | * Lung                      | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      | * Parathyroid Gland      |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

OBSERVATIONS

|                                 |                   |                           |          |
|---------------------------------|-------------------|---------------------------|----------|
| * Brain                         |                   | Hydrocephalus             | Mild     |
| * Heart                         |                   | Cardiomyopathy            | Minimal  |
| * Islets, Pancreatic            |                   | Hyperplasia               | Mild     |
| * Kidney                        |                   | Nephropathy               | Moderate |
| [ Nephropathy TGLS = 3-7 ]      |                   |                           |          |
| * Liver                         |                   | Vacuolization Cytoplasmic | Minimal  |
| * Lymph Node, Mediastinal       |                   | Pigmentation              | Minimal  |
| * Mammary Gland                 |                   | Galactocele               | Mild     |
| * Pancreas                      | Acinus            | Hyperplasia               | Mild     |
| * Pituitary Gland               | Pars Distalis     | Adenoma                   |          |
| [ Adenoma TGLS = 4-1 ]          |                   |                           |          |
| * Preputial Gland               |                   | Inflammation              | Mild     |
| * Skin                          |                   | Keratoacanthoma           |          |
| [ Keratoacanthoma TGLS = 1-14 ] |                   |                           |          |
| * Testes                        | Interstitial Cell | Hyperplasia               | Minimal  |
| * Thyroid Gland                 | C Cell            | Hyperplasia               | Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-030

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Blood Vessel           | * Bone                     | * Brain                   |
| * Epididymis                | * Esophagus              | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Mammary Gland          | * Nose                     | * Parathyroid Gland       |
| * Pituitary Gland           | * Preputial Gland        | * Prostate                 | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | * Stomach, Glandular       | * Thymus                  |
| * Trachea                   | * Urinary Bladder        |                            |                           |

OBSERVATIONS

|                                      |            |                         |      |
|--------------------------------------|------------|-------------------------|------|
| * Adrenal Medulla                    |            | Hyperplasia             | Mild |
|                                      |            | Leukemia Mononuclear    |      |
|                                      |            | Pheochromocytoma Benign |      |
| * Bone Marrow                        |            | Leukemia Mononuclear    |      |
| * Heart                              |            | Leukemia Mononuclear    |      |
| * Intestine Large, Cecum             |            | Leukemia Mononuclear    |      |
| * Kidney                             |            | Leukemia Mononuclear    |      |
|                                      |            | Nephropathy             | Mild |
|                                      |            | Pigmentation            | Mild |
|                                      |            |                         |      |
| [ Leukemia Mononuclear TGLS = 10-7 ] |            |                         |      |
| [ Nephropathy TGLS = 10-7 ]          |            |                         |      |
| * Liver                              |            | Leukemia Mononuclear    |      |
| [ Leukemia Mononuclear TGLS = 5-5 ]  |            |                         |      |
| * Lung                               |            | Leukemia Mononuclear    |      |
| Lymph Node                           | Pancreatic | Leukemia Mononuclear    |      |
| [ Leukemia Mononuclear TGLS = 2-13 ] |            |                         |      |
| * Lymph Node, Bronchial              |            | Leukemia Mononuclear    |      |
| * Lymph Node, Mandibular             |            | Leukemia Mononuclear    |      |
| [ Leukemia Mononuclear TGLS = 7-2 ]  |            |                         |      |
| * Lymph Node, Mediastinal            |            | Leukemia Mononuclear    |      |
| [ Leukemia Mononuclear TGLS = 8-5 ]  |            |                         |      |
| * Lymph Node, Mesenteric             |            | Leukemia Mononuclear    |      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:32

**First Dose M/F:** NA / NA

**Lab:** IIT

**ANIMAL ID:** 30

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-030

**ORGAN AND ACCOUNTABLE SITE STATUS**

|   |                           |                      |      |
|---|---------------------------|----------------------|------|
| Mesentery<br>[ Necrosis TGLS = 1,6-13 ]         | Fat                       | Necrosis             | Mild |
| * Pancreas                                      | Acinus                    | Atrophy              | Mild |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 4-5 ] |                           | Leukemia Mononuclear |      |
| * Stomach, Forestomach                          |                           | Hyperplasia          | Mild |
|   |                           | Ulcer                | Mild |
| * Testes<br>[ Adenoma TGLS = 3-9 ]              | Bilateral, Interstit Cell | Adenoma              |      |
| * Thyroid Gland                                 | Bilateral, C Cell         | Adenoma              |      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-031

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Bronchial    |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     |
| * Parathyroid Gland       | * Preputial Gland           | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Thymus                  | * Trachea                   | * Urinary Bladder        |                            |

OBSERVATIONS

|  |                           |                         |                   |
|--|---------------------------|-------------------------|-------------------|
| * Adrenal Medulla                      |                           | Pheochromocytoma Benign |                   |
| * Bone Marrow                          |                           | Hyperplasia             | Mild              |
| * Heart                                |                           | Cardiomyopathy          | Mild              |
|  | Valve                     | Fibrosis                | Moderate          |
| * Kidney                               |                           | Leukemia Mononuclear    |                   |
|  |                           | Nephropathy             | Mild              |
| * Liver                                |                           | Eosinophilic Focus      | Mild              |
|  |                           | Leukemia Mononuclear    |                   |
|  |                           |                         |                   |
| [ Leukemia Mononuclear TGLS = 3-5 ]    |                           |                         |                   |
| * Lymph Node, Mandibular               |                           | Hyperplasia             | Plasma Cell, Mild |
| * Pancreas                             | Acinus                    | Atrophy                 | Mild              |
| * Pituitary Gland                      | Pars Distalis             | Adenoma                 |                   |
| * Spleen                               |                           | Leukemia Mononuclear    |                   |
|  |                           |                         |                   |
| [ Leukemia Mononuclear TGLS = 2-5,13 ] |                           |                         |                   |
| * Testes                               | Bilateral, Interstit Cell | Adenoma                 |                   |
|  |                           |                         |                   |
| [ Adenoma TGLS = 1-9 ]                 |                           |                         |                   |
| * Thyroid Gland                        | Bilateral, C Cell         | Adenoma                 |                   |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 623

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-032

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Bone                    | * Bone Marrow               | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Parathyroid Gland       | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

|                        |                           |                         |          |
|------------------------|---------------------------|-------------------------|----------|
| * Adrenal Cortex       |                           | Hyperplasia             | Minimal  |
| * Adrenal Medulla      |                           | Pheochromocytoma Benign |          |
| * Kidney               |                           | Nephropathy             | Moderate |
| * Liver                |                           | Leukemia Mononuclear    |          |
| * Pancreas             | Acinus                    | Atrophy                 | Minimal  |
| * Pituitary Gland      | Pars Distalis             | Adenoma                 |          |
|                        | [ Adenoma TGLS = 6-1 ]    |                         |          |
| * Spleen               |                           | Leukemia Mononuclear    |          |
| * Stomach, Forestomach |                           | Hyperplasia             | Moderate |
|                        |                           | Ulcer                   | Moderate |
| * Testes               | Bilateral, Interstit Cell | Adenoma                 |          |
|                        |                           | Atrophy                 | Marked   |
|                        | [ Adenoma TGLS = 4-9 ]    |                         |          |
|                        | [ Atrophy TGLS = 5-9 ]    |                         |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 689

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-033

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Preputial Gland        | * Prostate                 | * Salivary Glands         |
| * Skin                      | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           |                          |                            |                           |

OBSERVATIONS

|                         |                             |                                  |                          |
|-------------------------|-----------------------------|----------------------------------|--------------------------|
| * Adrenal Medulla       | Bilateral                   | Hyperplasia                      | Mild                     |
| * Blood Vessel          | Aorta                       | Mineralization                   | Marked                   |
| * Bone Marrow           | Myeloid Cell                | Atrophy                          | Mild                     |
|                         |                             | Hyperplasia                      | Mild                     |
| * Heart                 |                             | Cardiomyopathy                   | Moderate                 |
|                         |                             | Mineralization                   | Mild                     |
| * Kidney                | Transit Epithe              | Hyperplasia                      | Moderate                 |
|                         |                             | Mineralization                   | Minimal                  |
|                         |                             | Nephropathy                      | Marked                   |
|                         | [ Nephropathy TGLS = 5-7 ]  |                                  |                          |
| * Liver                 |                             | Degeneration                     | Cystic, Minimal          |
| * Lung                  |                             | Inflammation                     | Chronic Active, Moderate |
|                         | [ Inflammation TGLS = 1-6 ] |                                  |                          |
| * Lymph Node, Bronchial |                             | Hemorrhage                       | Minimal                  |
|                         |                             | Pigmentation                     | Minimal                  |
| * Nose                  | Respirat Epith              | Hyperplasia                      | Mild                     |
| * Pancreas              | Acinus                      | Atrophy                          | Mild                     |
| * Parathyroid Gland     |                             | Hyperplasia                      | Marked                   |
|                         | [ Hyperplasia TGLS = 3-3 ]  |                                  |                          |
| * Pituitary Gland       | Pars Distalis               | Hyperplasia                      | Minimal                  |
| * Seminal Vesicle       |                             | Mineralization                   | Mild                     |
| * Spleen                |                             | Hematopoietic Cell Proliferation | Mild                     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |  |   |  |
|----------------------|--|---|--|
| <b>ANIMAL ID:</b> 33 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 689<br><b>HISTO:</b> 90-5201-033 |
|----------------------|--|---|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                           |                |          |
|------------------------|---------------------------|----------------|----------|
| * Stomach, Forestomach |                           | Mineralization | Mild     |
| * Stomach, Glandular   |                           | Mineralization | Moderate |
| * Testes               | Bilateral, Interstit Cell | Adenoma        |          |
| [ Adenoma TGLS = 4-9 ] |                           |                |          |

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 710

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-034

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                      |                          |                           |                             |
|----------------------|--------------------------|---------------------------|-----------------------------|
| * Blood Vessel       | * Bone                   | * Brain                   | * Epididymis                |
| * Esophagus          | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Islets, Pancreatic | * Mammary Gland          | * Pancreas                | * Salivary Glands           |
| * Skin               | * Stomach, Forestomach   | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland      | * Trachea                |                           |                             |

MISSING

- \* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

- |                          |                          |                            |                   |
|--------------------------|--------------------------|----------------------------|-------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Seminal Vesicle |
|--------------------------|--------------------------|----------------------------|-------------------|

OBSERVATIONS

- |                           |                |   |                  |
|---------------------------|----------------|---|------------------|
| * Adrenal Cortex          |                | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Mild             |
| * Adrenal Medulla         |                | Leukemia Mononuclear                              |                  |
| * Bone Marrow             |                | Leukemia Mononuclear                              |                  |
| * Heart                   |                | Cardiomyopathy                                    | Moderate         |
| * Kidney                  | Transit Epithe | Leukemia Mononuclear<br>Hyperplasia               | Mild             |
|                           |                | Leukemia Mononuclear<br>Nephropathy               | Marked           |
|                           |                | [ Nephropathy TGLS = 3-7 ]                        |                  |
| * Larynx                  |                | Inflammation                                      | Minimal          |
| * Liver                   |                | Degeneration                                      | Cystic, Moderate |
|                           |                | Leukemia Mononuclear                              |                  |
| * Lung                    |                | Leukemia Mononuclear                              |                  |
| * Lymph Node, Mandibular  |                | Leukemia Mononuclear                              |                  |
| * Lymph Node, Mediastinal |                | Leukemia Mononuclear                              |                  |
| * Lymph Node, Mesenteric  |                | Leukemia Mononuclear                              |                  |
| * Nose                    | Respirat Epith | Hyperplasia                                       | Minimal          |
|                           |                | Inflammation                                      | Mild             |
| * Parathyroid Gland       |                | Hyperplasia                                       | Moderate         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                            |                           |
|----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 34 | <b>TRT#:</b> 1       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 710   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-034 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                      |                           |                      |          |
|--------------------------------------|---------------------------|----------------------|----------|
| [ Hyperplasia TGLS = 1-3 ]           |                           |                      |          |
| * Pituitary Gland                    | Pars Distalis             | Adenoma              |          |
| [ Adenoma TGLS = 5-1 ]               |                           |                      |          |
| * Preputial Gland                    |                           | Inflammation         | Moderate |
|                                      |                           | Leukemia Mononuclear |          |
| * Prostate                           |                           | Inflammation         | Moderate |
|                                      |                           | Leukemia Mononuclear |          |
| [ Inflammation TGLS = 8-10 ]         |                           |                      |          |
| [ Leukemia Mononuclear TGLS = 8-10 ] |                           |                      |          |
| * Spleen                             |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-5 ]  |                           |                      |          |
| * Testes                             | Bilateral, Interstit Cell | Adenoma              |          |
| * Urinary Bladder                    |                           | Hemorrhage           | Moderate |
|                                      |                           | Leukemia Mononuclear |          |
| [ Hemorrhage TGLS = 4-13 ]           |                           |                      |          |
| [ Leukemia Mononuclear TGLS = 4-13 ] |                           |                      |          |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-035

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Epididymis                | * Esophagus              |
| * Intestine Large, Cecum   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Mammary Gland           | * Nose                      | * Parathyroid Gland      |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

**MISSING**

|                         |                   |
|-------------------------|-------------------|
| * Lymph Node, Bronchial | * Preputial Gland |
|-------------------------|-------------------|

**OBSERVATIONS**

|  |                           |                              |          |
|--|---------------------------|------------------------------|----------|
| * Heart                                      |                           | Cardiomyopathy               | Minimal  |
| * Intestine Large, Colon                     |                           | Sarcoma                      |          |
| [ Sarcoma TGLS = 6-15 ]                      |                           |                              |          |
| * Kidney                                     |                           | Nephropathy                  | Mild     |
| [ Nephropathy TGLS = 9-7 ]                   |                           |                              |          |
| * Liver                                      |                           | Clear Cell Focus             | Minimal  |
| * Lung                                       |                           | Alveolar/Bronchiolar Adenoma |          |
| [ Alveolar/Bronchiolar Adenoma TGLS = 8-13 ] |                           |                              |          |
| * Lymph Node, Mediastinal                    |                           | Hemorrhage                   | Moderate |
| * Pancreas                                   | Acinus                    | Atrophy                      | Minimal  |
| * Pituitary Gland                            | Pars Distalis             | Adenoma                      |          |
| [ Adenoma TGLS = 5-1 ]                       |                           |                              |          |
| * Skin                                       | Subcut Tiss               | Fibroma                      |          |
| [ Fibroma TGLS = 2-14 ]                      |                           |                              |          |
| * Testes                                     | Bilateral, Interstit Cell | Adenoma                      |          |
| [ Adenoma TGLS = 4-9 ]                       |                           |                              |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 36

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 574

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-036

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                            |                          |                           |
|---------------------------|----------------------------|--------------------------|---------------------------|
| * Adrenal Medulla         | * Blood Vessel             | * Bone                   | * Epididymis              |
| * Esophagus               | * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Ileum  | * Intestine Small, Jejunum | * Islets, Pancreatic     | * Lymph Node, Mandibular  |
| * Lymph Node, Mediastinal | * Mammary Gland            | * Pancreas               | * Parathyroid Gland       |
| * Prostate                | * Salivary Glands          | * Seminal Vesicle        | * Skin                    |
| * Stomach, Forestomach    | * Stomach, Glandular       | * Thymus                 | * Trachea                 |
| * Urinary Bladder         |                            |                          |                           |

**MISSING**

\* Larynx

**OBSERVATIONS**

|                             |                                     |                           |          |
|-----------------------------|-------------------------------------|---------------------------|----------|
| * Adrenal Cortex            |                                     | Vacuolization Cytoplasmic | Mild     |
| * Bone Marrow               |                                     | Leukemia Mononuclear      |          |
| * Brain                     |                                     | Leukemia Mononuclear      |          |
| * Heart                     |                                     | Leukemia Mononuclear      |          |
| * Intestine Small, Duodenum |                                     | Leukemia Mononuclear      |          |
| * Kidney                    |                                     | Leukemia Mononuclear      |          |
|                             |                                     | Nephropathy               | Minimal  |
| * Liver                     |                                     | Leukemia Mononuclear      |          |
|                             | [ Leukemia Mononuclear TGLS = 4-5 ] |                           |          |
| * Lung                      |                                     | Leukemia Mononuclear      |          |
| * Lymph Node, Bronchial     |                                     | Leukemia Mononuclear      |          |
| * Lymph Node, Mesenteric    |                                     | Leukemia Mononuclear      |          |
| * Nose                      | Nasolacrim Dct                      | Inflammation              | Mild     |
| * Pituitary Gland           | Pars Distalis                       | Cyst                      | Minimal  |
| * Preputial Gland           |                                     | Adenoma                   |          |
|                             |                                     | Inflammation              | Moderate |
|                             | [ Adenoma TGLS = 1,2-10 ]           |                           |          |
|                             | [ Inflammation TGLS = 2-10 ]        |                           |          |
| * Spleen                    |                                     | Leukemia Mononuclear      |          |
|                             | [ Leukemia Mononuclear TGLS = 3-5 ] |                           |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |  |   |  |
|----------------------|--|---|--|
| <b>ANIMAL ID:</b> 36 | <b>TRT#:</b> 1<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 574<br><b>HISTO:</b> 90-5201-036 |
|----------------------|--|---|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                 |                |                                     |         |
|-----------------|----------------|-------------------------------------|---------|
| * Testes        | Interstit Cell | Hyperplasia<br>Leukemia Mononuclear | Mild    |
| * Thyroid Gland | C Cell         | Hyperplasia                         | Minimal |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-037

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Bronchial  | * Preputial Gland          | * Salivary Glands         | * Seminal Vesicle           |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |                             |

OBSERVATIONS

|                           |                                     |                      |          |
|---------------------------|-------------------------------------|----------------------|----------|
| * Heart                   |                                     | Cardiomyopathy       | Mild     |
| * Kidney                  | Transit Epithe                      | Hyperplasia          | Mild     |
|                           |                                     | Nephropathy          | Moderate |
|                           | [ Nephropathy TGLS = 6-7 ]          |                      |          |
| * Liver                   |                                     | Basophilic Focus     | Minimal  |
|                           |                                     | Eosinophilic Focus   | Minimal  |
|                           |                                     | Leukemia Mononuclear |          |
| * Lung                    |                                     | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 7-6 ] |                      |          |
| * Lymph Node, Mandibular  |                                     | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal |                                     | Pigmentation         | Minimal  |
| * Lymph Node, Mesenteric  |                                     | Leukemia Mononuclear |          |
| * Mammary Gland           |                                     | Galactocele          | Moderate |
| * Nose                    | Respirat Epith                      | Hyperplasia          | Mild     |
|                           |                                     | Inflammation         | Mild     |
| * Pancreas                | Acinus                              | Atrophy              | Minimal  |
| * Parathyroid Gland       |                                     | Hyperplasia          | Mild     |
| * Pituitary Gland         | Pars Distalis                       | Angiectasis          | Moderate |
|                           | [ Angiectasis TGLS = 4-1 ]          |                      |          |
| * Prostate                |                                     | Inflammation         | Mild     |
| * Spleen                  |                                     | Fibrosis             | Mild     |
|                           |                                     | Leukemia Mononuclear |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 37 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 734   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-037 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                          |                           |                    |          |
|--------------------------|---------------------------|--------------------|----------|
| [ Fibrosis TGLS = 1-13 ] |                           |                    |          |
| * Testes                 | Bilateral, Interstit Cell | Adenoma<br>Atrophy | Moderate |
| [ Adenoma TGLS = 3-9 ]   |                           |                    |          |
| [ Atrophy TGLS = 2-9 ]   |                           |                    |          |

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 391

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-038

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                           |                          |                           |
|-----------------------------|---------------------------|--------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla         | * Blood Vessel           | * Bone                    |
| * Bone Marrow               | * Brain                   | * Epididymis             | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum  | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum  | * Islets, Pancreatic     | * Lung                    |
| * Lymph Node, Mandibular    | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Pancreas                |
| * Parathyroid Gland         | * Prostate                | * Salivary Glands        | * Seminal Vesicle         |
| * Skin                      | * Spleen                  | * Stomach, Glandular     | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder         |                          |                           |

MISSING

|          |                         |          |
|----------|-------------------------|----------|
| * Larynx | * Lymph Node, Bronchial | * Thymus |
|----------|-------------------------|----------|

AUTO PRECLUDES DIAG.

\* Intestine Small, Jejunum

OBSERVATIONS

|  |                |                           |         |
|--|----------------|---------------------------|---------|
| * Brain  |                |                           |         |
| Note: The brain is markedly compressed by the pituitary tumor.                       |                |                           |         |
| * Kidney   |                | Nephropathy               | Minimal |
| * Larynx   |                |                           |         |
| Note: A section of larynx is present, but not in the proper location for evaluation. |                |                           |         |
| * Liver  |                | Vacuolization Cytoplasmic | Mild    |
| * Mammary Gland  |                | Galactoceles              | Minimal |
| * Nose   | Respirat Epith | Hyperplasia               | Mild    |
|  |                | Inflammation              | Mild    |
| * Pituitary Gland  | Pars Distalis  | Adenoma                   |         |
| [ Adenoma TGLS = 1-1 ]   |                |                           |         |
| * Preputial Gland  |                | Inflammation              | Mild    |
| * Sem Ves  |                |                           |         |
| Note: The seminal vesicles were depleted of secretion.                               |                |                           |         |
| * Stomach, Forestomach   |                | Ulcer                     | Marked  |
| * Testes   | Bilateral      | Atrophy                   | Marked  |
| [ Atrophy TGLS = 3-9 ]   |                |                           |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 38

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 391

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-038

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 497

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-039

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                          |                           |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel           | * Bone                    |
| * Bone Marrow               | * Brain                  | * Epididymis             | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic     | * Lung                    |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                   | * Parathyroid Gland       |
| * Preputial Gland           | * Prostate               | * Salivary Glands        | * Seminal Vesicle         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach   | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                | * Urinary Bladder         |

MISSING

|          |                          |
|----------|--------------------------|
| * Larynx | * Lymph Node, Mandibular |
|----------|--------------------------|

AUTO PRECLUDES DIAG.

|                            |
|----------------------------|
| * Intestine Small, Jejunum |
|----------------------------|

OBSERVATIONS

|                           |                |             |          |
|---------------------------|----------------|-------------|----------|
| * Kidney                  |                | Nephropathy | Minimal  |
| * Liver                   |                | Necrosis    | Moderate |
| [ Necrosis TGLS = 1-5 ]   |                |             |          |
| * Lymph Node, Bronchial   |                | Hemorrhage  | Marked   |
| * Lymph Node, Mediastinal |                | Hemorrhage  | Marked   |
| Mesentery                 |                | Sarcoma     |          |
| [ Sarcoma TGLS = 2-13 ]   |                |             |          |
| * Pancreas                | Acinus         | Atrophy     | Mild     |
| * Pituitary Gland         | Pars Distalis  | Hyperplasia | Mild     |
| * Testes                  | Interstit Cell | Adenoma     |          |
|                           | Interstit Cell | Hyperplasia | Mild     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-040

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Pancreas               |
| * Parathyroid Gland        | * Prostate                | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |                          |

MISSING

\* Mammary Gland

OBSERVATIONS

|                                     |                           |                      |          |
|-------------------------------------|---------------------------|----------------------|----------|
| * Adrenal Medulla                   |                           | Hyperplasia          | Mild     |
| * Heart                             |                           | Cardiomyopathy       | Mild     |
| * Kidney                            | Transit Epithe            | Hyperplasia          | Minimal  |
|                                     |                           | Nephropathy          | Moderate |
| [ Nephropathy TGLS = 6-7 ]          |                           |                      |          |
| * Liver                             |                           | Eosinophilic Focus   | Mild     |
|                                     |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 5-5 ] |                           |                      |          |
| * Lung                              |                           | Leukemia Mononuclear |          |
| * Nose                              |                           | Inflammation         | Minimal  |
| * Pituitary Gland                   | Pars Distalis             | Hyperplasia          | Mild     |
| * Preputial Gland                   |                           | Inflammation         | Mild     |
| * Spleen                            |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 4-5 ] |                           |                      |          |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |          |
| [ Adenoma TGLS = 3-9 ]              |                           |                      |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 639

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-041

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lymph Node, Bronchial     | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           |
| * Nose                      | * Pancreas               | * Parathyroid Gland        | * Pituitary Gland         |
| * Preputial Gland           | * Prostate               | * Salivary Glands          | * Seminal Vesicle         |
| * Skin                      | * Stomach, Forestomach   | * Thymus                   | * Thyroid Gland           |
| * Urinary Bladder           |                          |                            |                           |

MISSING

\* Larynx

OBSERVATIONS

|  |           |                      |              |
|--|-----------|----------------------|--------------|
| * Adrenal Cortex   | Bilateral | Atrophy              | Mild         |
|  |           | Leukemia Mononuclear |              |
|  |           | Pigmentation         | Mild         |
| [ Atrophy TGLS = 4-3 ]   |           |                      |              |
| * Adrenal Medulla  |           | Hyperplasia          | Mild         |
|  |           | Leukemia Mononuclear |              |
| * Bone Marrow  |           | Leukemia Mononuclear |              |
| * Heart  |           | Cardiomyopathy       | Moderate     |
|  |           | Leukemia Mononuclear |              |
| * Kidney   |           | Leukemia Mononuclear |              |
|  |           | Nephropathy          | Mild         |
| * Larynx   |           |                      |              |
| Note: Larynx is present, but the correct area is unavailable for evaluation. |           |                      |              |
| * Liver  |           | Degeneration         | Cystic, Mild |
|  |           | Leukemia Mononuclear |              |
| [ Leukemia Mononuclear TGLS = 5-5 ]  |           |                      |              |
| * Lung   |           | Leukemia Mononuclear |              |
| [ Leukemia Mononuclear TGLS = 1-14 ]   |           |                      |              |
| * Lymph Node, Mediastinal  |           | Leukemia Mononuclear |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 41 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 639   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-041 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|  |                           |                      |          |
|--|---------------------------|----------------------|----------|
| [ Leukemia Mononuclear TGLS = 10-5 ]   |                           |                      |          |
| * Spleen                               |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2,3-13 ] |                           |                      |          |
| * Stomach, Glandular                   |                           | Leukemia Mononuclear |          |
|  |                           | Necrosis             | Mild     |
| * Testes                               | Bilateral, Interstit Cell | Adenoma              |          |
|  |                           | Atrophy              | Moderate |
| [ Adenoma TGLS = 6,7,9-9 ]             |                           |                      |          |
| [ Atrophy TGLS = 8-9 ]                 |                           |                      |          |
| * Trachea                              |                           | Leukemia Mononuclear |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-042

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Parathyroid Gland         |
| * Prostate               | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |                             |

OBSERVATIONS

|                           |                            |                           |              |
|---------------------------|----------------------------|---------------------------|--------------|
| * Heart                   |                            | Cardiomyopathy            | Mild         |
| * Islets, Pancreatic      |                            | Adenoma                   |              |
| * Kidney                  | Transit Epithe             | Hyperplasia               | Mild         |
|                           |                            | Nephropathy               | Moderate     |
|                           | [ Nephropathy TGLS = 4-7 ] |                           |              |
| * Liver                   |                            | Degeneration              | Cystic, Mild |
|                           |                            | Vacuolization Cytoplasmic | Minimal      |
| * Lymph Node, Mediastinal |                            | Hemorrhage                | Minimal      |
|                           |                            | Pigmentation              | Minimal      |
| * Mammary Gland           |                            | Hyperplasia               | Mild         |
| * Nose                    | Respirat Epith             | Hyperplasia               | Mild         |
| * Pancreas                | Acinus                     | Atrophy                   | Moderate     |
| * Pituitary Gland         | Pars Distalis              | Adenoma                   |              |
|                           | [ Adenoma TGLS = 2-1 ]     |                           |              |
| * Preputial Gland         |                            | Inflammation              | Mild         |
| * Testes                  | Bilateral, Interstit Cell  | Adenoma                   |              |
|                           | [ Adenoma TGLS = 1-9 ]     |                           |              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 685

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-43

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                            |                          |                           |
|-----------------------------|----------------------------|--------------------------|---------------------------|
| * Blood Vessel              | * Bone                     | * Brain                  | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic     | * Larynx                  |
| * Lymph Node, Mesenteric    | * Parathyroid Gland        | * Preputial Gland        | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle          | * Skin                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Trachea                  | * Urinary Bladder        |                           |

OBSERVATIONS

|                                     |                |  |                     |
|-------------------------------------|----------------|--|---------------------|
| * Adrenal Cortex                    |                | Leukemia Mononuclear<br>Vacuolization Cytoplasmic  | Mild                |
| * Adrenal Medulla                   |                | Leukemia Mononuclear                               |                     |
| * Bone Marrow                       |                | Leukemia Mononuclear                               |                     |
| * Heart                             | Atrium         | Leukemia Mononuclear<br>Thrombosis                 | Moderate            |
| [ Thrombosis TGLS = 8-4 ]           |                |  |                     |
| * Intestine Small, Ileum            |                | Leukemia Mononuclear                               |                     |
| * Kidney                            | Transit Epithe | Hyperplasia<br>Leukemia Mononuclear<br>Nephropathy | Minimal<br>Moderate |
| [ Leukemia Mononuclear TGLS = 5-7 ] |                |  |                     |
| [ Nephropathy TGLS = 5-7 ]          |                |  |                     |
| * Liver                             |                | Leukemia Mononuclear                               |                     |
| * Lung                              |                | Leukemia Mononuclear                               |                     |
| * Lymph Node, Bronchial             |                | Hemorrhage   | Minimal             |
| * Lymph Node, Mandibular            |                | Leukemia Mononuclear                               |                     |
| * Lymph Node, Mediastinal           |                | Leukemia Mononuclear                               |                     |
| * Mammary Gland                     |                | Hyperplasia  | Mild                |
| * Nose                              |                | Leukemia Mononuclear                               |                     |
| * Pancreas                          | Acinus         | Atrophy  | Mild                |
| * Pituitary Gland                   | Pars Distalis  | Angiectasis  | Mild                |
|                                     | Pars Distalis  | Hyperplasia  | Moderate            |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                          |
|----------------------|----------------------|---------------------------------|--------------------------|
| <b>ANIMAL ID:</b> 43 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 685  |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-43 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                            |                           |                      |      |
|----------------------------|---------------------------|----------------------|------|
| [ Angiectasis TGLS = 6-1 ] |                           |                      |      |
| [ Hyperplasia TGLS = 7-1 ] |                           |                      |      |
| * Spleen                   |                           | Leukemia Mononuclear |      |
| * Testes                   | Bilateral, Interstit Cell | Adenoma              |      |
| [ Adenoma TGLS = 3,4-9 ]   |                           |                      |      |
| * Thymus                   |                           | Leukemia Mononuclear |      |
| * Thyroid Gland            | C Cell                    | Hyperplasia          | Mild |
| PRIMARY CAUSE OF DEATH     | -                         |                      |      |

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 653

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-044

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Brain                   | * Epididymis                |
| * Esophagus              | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Nose                   | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Stomach, Forestomach   | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

OBSERVATIONS

|  |               |                           |                  |
|--|---------------|---------------------------|------------------|
| * Adrenal Cortex<br>[ Vacuolization Cytoplasmic TGLS = 10-3 ]    |               | Vacuolization Cytoplasmic | Moderate         |
| * Adrenal Medulla  |               | Hyperplasia               | Mild             |
| * Bone Marrow  |               | Leukemia Mononuclear      |                  |
| * Heart  |               | Leukemia Mononuclear      |                  |
| * Intestine Large, Cecum   |               | Ulcer                     | Marked           |
| * Kidney   |               | Leukemia Mononuclear      |                  |
|  |               | Nephropathy               | Mild             |
| * Liver<br>[ Leukemia Mononuclear TGLS = 6-5 ]                   |               | Leukemia Mononuclear      |                  |
| * Lung   |               | Inflammation              | Chronic, Minimal |
| * Lymph Node, Bronchial  |               | Leukemia Mononuclear      |                  |
| * Lymph Node, Mandibular   |               | Leukemia Mononuclear      |                  |
| * Lymph Node, Mediastinal<br>[ Leukemia Mononuclear TGLS = 3-5 ] |               | Leukemia Mononuclear      |                  |
| * Lymph Node, Mesenteric   |               | Leukemia Mononuclear      |                  |
| * Mammary Gland<br>[ Galactoceles TGLS = 2-14 ]                  |               | Galactoceles              | Marked           |
| * Pancreas   | Acinus        | Atrophy                   | Mild             |
| * Parathyroid Gland  |               | Hyperplasia               | Mild             |
| * Pituitary Gland  | Pars Distalis | Adenoma                   |                  |
|  | Pars Distalis | Angiectasis               | Moderate         |
|  | Pars Distalis | Leukemia Mononuclear      |                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:32

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 44

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 653

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-044

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|  |           |                      |      |
|--|-----------|----------------------|------|
| [ Angiectasis TGLS = 9-1 ]             |           |                      |      |
| [ Leukemia Mononuclear TGLS = 9-1 ]    |           |                      |      |
| * Preputial Gland                      |           | Inflammation         | Mild |
| [ Inflammation TGLS = 1-10 ]           |           |                      |      |
| * Prostate                             |           | Inflammation         | Mild |
| * Spleen                               |           | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 4,5-13 ] |           |                      |      |
| * Stomach, Glandular                   |           | Leukemia Mononuclear |      |
| * Testes                               | Bilateral | Atrophy              | Mild |
| [ Atrophy TGLS = 7-9 ]                 |           |                      |      |

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 570

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-045

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                      |                        |                      |
|--------------------------|----------------------|------------------------|----------------------|
| * Adrenal Cortex         | * Adrenal Medulla    | * Blood Vessel         | * Bone               |
| * Brain                  | * Epididymis         | * Esophagus            | * Heart              |
| * Intestine Large, Colon | * Islets, Pancreatic | * Larynx               | * Mammary Gland      |
| * Parathyroid Gland      | * Pituitary Gland    | * Prostate             | * Salivary Glands    |
| * Seminal Vesicle        | * Skin               | * Stomach, Forestomach | * Stomach, Glandular |
| * Thyroid Gland          | * Trachea            |                        |                      |

MISSING

|                           |                          |
|---------------------------|--------------------------|
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
|---------------------------|--------------------------|

AUTO PRECLUDES DIAG.

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Intestine Large, Cecum   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Urinary Bladder         |                             |                          |

OBSERVATIONS

|                          |                                       |                      |          |
|--------------------------|---------------------------------------|----------------------|----------|
| * Bone Marrow            |                                       | Leukemia Mononuclear |          |
| * Kidney                 |                                       | Leukemia Mononuclear |          |
|                          |                                       | Nephropathy          | Mild     |
| * Liver                  |                                       | Leukemia Mononuclear |          |
| * Lung                   |                                       | Leukemia Mononuclear |          |
| * Lymph Node, Bronchial  |                                       | Leukemia Mononuclear |          |
| * Lymph Node, Mandibular |                                       | Leukemia Mononuclear |          |
|                          | [ Leukemia Mononuclear TGLS = 1,2-2 ] |                      |          |
| * Nose                   | Respirat Epith                        | Hyperplasia          | Minimal  |
|                          | Respirat Epith                        | Inflammation         | Minimal  |
|                          | Respirat Epith                        | Ulcer                | Minimal  |
| * Pancreas               |                                       | Leukemia Mononuclear |          |
| * Preputial Gland        |                                       | Inflammation         | Marked   |
|                          | [ Inflammation TGLS = 3,4-10 ]        |                      |          |
| * Spleen                 |                                       | Leukemia Mononuclear |          |
|                          | [ Leukemia Mononuclear TGLS = 5-5 ]   |                      |          |
| * Testes                 | Interstit Cell                        | Adenoma              |          |
|                          | Bilateral                             | Atrophy              | Moderate |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:32

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 45

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 570

**DOSE:** CONTROL

**DISP:** Natural Death

**HISTO:** 90-5201-045

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Interstit Cell

Hyperplasia

Mild

[ Adenoma TGLS = 6-9 ]

[ Atrophy TGLS = 7,8-9 ]

\* Thymus

Tongue

[ Squamous Cell Papilloma TGLS = 9-13 ]

Leukemia Mononuclear

Squamous Cell Papilloma

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 714

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-046

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                           |                          |                            |
|--------------------------|---------------------------|--------------------------|----------------------------|
| * Adrenal Cortex         | * Brain                   | * Epididymis             | * Esophagus                |
| * Intestine Large, Cecum | * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Larynx                  | * Liver                  | * Lymph Node, Bronchial    |
| * Lymph Node, Mandibular | * Mammary Gland           | * Nose                   | * Preputial Gland          |
| * Salivary Glands        | * Seminal Vesicle         | * Skin                   | * Thymus                   |
| * Trachea                | * Urinary Bladder         |                          |                            |

OBSERVATIONS

|                             |  |                              |                            |
|-----------------------------|--|------------------------------|----------------------------|
| * Adrenal Medulla           | Bilateral                                    | Hyperplasia                  | Mild                       |
| * Blood Vessel              | Aorta  | Mineralization               | Marked                     |
| * Bone                      |  | Fibrous Osteodystrophy       | Mild                       |
|                             | Turbinates                                   | Hyperostosis                 | Mild                       |
| * Bone Marrow               |  | Hyperplasia                  | Moderate                   |
| * Heart                     |  | Cardiomyopathy               | Moderate                   |
|                             |  | Mineralization               | Mild                       |
| * Intestine Large, Colon    |  | Mineralization               | Mild                       |
| * Intestine Small, Duodenum |  | Mineralization               | Minimal                    |
| * Kidney                    | Renal Tubule                                 | Hyperplasia                  | Mild                       |
|                             | Transit Epithe                               | Hyperplasia                  | Moderate                   |
|                             |  | Nephropathy                  | Marked                     |
|                             | [ Nephropathy TGLS = 3-7 ]                   |                              |                            |
| * Lung                      |  | Alveolar/Bronchiolar Adenoma |                            |
|                             |  | Carcinoma                    | Metastatic (Thyroid Gland) |
|                             |  | Inflammation                 | Chronic Active, Mild       |
|                             |  | Mineralization               | Mild                       |
|                             | [ Alveolar/Bronchiolar Adenoma TGLS = 4-13 ] |                              |                            |
| * Lymph Node, Mediastinal   |  | Infiltration Cellular        | Histiocyte, Moderate       |
|                             |  | Pigmentation                 | Minimal                    |
| * Lymph Node, Mesenteric    |  | Hemorrhage                   | Minimal                    |
| * Pancreas                  | Acinus                                       | Hyperplasia                  | Mild                       |
| * Parathyroid Gland         |  | Hyperplasia                  | Marked                     |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 714

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-046

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                            |                |                                  |          |
|----------------------------|----------------|----------------------------------|----------|
| [ Hyperplasia TGLS = 7-3 ] |                |                                  |          |
| * Pituitary Gland          | Pars Distalis  | Adenoma                          |          |
|                            | Pars Distalis  | Hyperplasia                      | Mild     |
| [ Adenoma TGLS = 5-1 ]     |                |                                  |          |
| * Prostate                 |                | Inflammation                     | Minimal  |
| * Spleen                   |                | Hematopoietic Cell Proliferation | Moderate |
| * Stomach, Forestomach     |                | Mineralization                   | Marked   |
| * Stomach, Glandular       |                | Mineralization                   | Mild     |
| * Testes                   | Interstit Cell | Adenoma                          |          |
|                            |                | Atrophy                          | Marked   |
|                            | Interstit Cell | Hyperplasia                      | Mild     |
| [ Adenoma TGLS = 2-9 ]     |                |                                  |          |
| [ Atrophy TGLS = 1-9 ]     |                |                                  |          |
| * Thyroid Gland            | C Cell         | Carcinoma                        |          |
| PRIMARY CAUSE OF DEATH     | -              |                                  |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 47

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 715

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-047

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Bone Marrow            | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Lung                    | * Lymph Node, Mediastinal   | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Testes                  | * Thymus                    | * Trachea                | * Urinary Bladder          |

**MISSING**

|                 |                     |
|-----------------|---------------------|
| * Mammary Gland | * Parathyroid Gland |
|-----------------|---------------------|

**OBSERVATIONS**

|  |                |                           |                      |
|--|----------------|---------------------------|----------------------|
| * Adrenal Cortex                         |                | Vacuolization Cytoplasmic | Mild                 |
| * Adrenal Medulla                        |                | Pheochromocytoma Benign   |                      |
| * Heart                                  |                | Cardiomyopathy            | Mild                 |
|  |                | Leukemia Mononuclear      |                      |
|  |                | Carcinoma                 |                      |
| * Islets, Pancreatic                     |                |                           |                      |
| [ Carcinoma TGLS = 11-2 ]                |                |                           |                      |
| * Kidney                                 |                | Leukemia Mononuclear      |                      |
|  |                | Nephropathy               | Mild                 |
| [ Nephropathy TGLS = 7-7 ]               |                |                           |                      |
| * Larynx                                 |                | Infiltration Cellular     | Lymphocyte, Moderate |
| * Liver                                  |                | Leukemia Mononuclear      |                      |
|  |                | Vacuolization Cytoplasmic | Moderate             |
| [ Vacuolization Cytoplasmic TGLS = 6-5 ] |                |                           |                      |
| * Lymph Node, Bronchial                  |                | Leukemia Mononuclear      |                      |
| * Lymph Node, Mandibular                 |                | Hyperplasia               | Plasma Cell, Mild    |
| [ Hyperplasia TGLS = 3-2 ]               |                |                           |                      |
| * Lymph Node, Mesenteric                 |                | Leukemia Mononuclear      |                      |
| * Nose                                   | Respirat Epith | Hyperplasia               | Minimal              |
| * Pancreas                               | Acinus         | Atrophy                   | Mild                 |
|  | Acinus         | Hyperplasia               | Mild                 |
| * Pituitary Gland                        | Pars Distalis  | Adenoma                   |                      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |                      |                                 |                           |
|----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 47 | <b>TRT#:</b> 1       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 715   |
|                      | <b>DOSE:</b> CONTROL | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-047 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |        |                      |          |
|-------------------------------------|--------|----------------------|----------|
| [ Adenoma TGLS = 9-1 ]              |        |                      |          |
| * Preputial Gland                   |        | Hyperplasia          | Moderate |
| [ Hyperplasia TGLS = 1-10 ]         |        |                      |          |
| * Spleen                            |        | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 5-5 ] |        |                      |          |
| * Thyroid Gland                     | C Cell | Hyperplasia          | Minimal  |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 354

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-048

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Bone Marrow  
\* Heart  
\* Intestine Small, Duodenum  
\* Lymph Node, Mandibular  
\* Nose  
\* Prostate  
\* Spleen  
\* Thyroid Gland

\* Adrenal Medulla  
\* Brain  
\* Intestine Large, Cecum  
\* Islets, Pancreatic  
\* Lymph Node, Mediastinal  
\* Pancreas  
\* Salivary Glands  
\* Stomach, Forestomach  
\* Trachea

\* Blood Vessel  
\* Epididymis  
\* Intestine Large, Colon  
\* Kidney  
\* Lymph Node, Mesenteric  
\* Parathyroid Gland  
\* Seminal Vesicle  
\* Stomach, Glandular  
\* Urinary Bladder

\* Bone  
\* Esophagus  
\* Intestine Large, Rectum  
\* Liver  
\* Mammary Gland  
\* Pituitary Gland  
\* Skin  
\* Thymus

MISSING

\* Larynx  
\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Small, Ileum  
\* Intestine Small, Jejunum

OBSERVATIONS

\* Lung  
\* Preputial Gland  
\* Testes  
Congestion  
Inflammation  
Hyperplasia  
Mild  
Moderate  
Mild  
Interstit Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-049

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Lymph Node, Mesenteric | * Nose                     | * Pancreas                | * Pituitary Gland           |
| * Preputial Gland        | * Prostate                 | * Salivary Glands         | * Seminal Vesicle           |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Trachea                | * Urinary Bladder          |                           |                             |

OBSERVATIONS

|   |                           |                         |              |
|---|---------------------------|-------------------------|--------------|
| * Heart                                 |                           | Cardiomyopathy          | Mild         |
| * Kidney                                |                           | Nephropathy             | Mild         |
| * Liver                                 |                           | Degeneration            | Cystic, Mild |
| * Mammary Gland                         |                           | Fibroadenoma            |              |
| [ Fibroadenoma TGLS = 1-15 ]            |                           |                         |              |
| Mesentery                               | Fat                       | Necrosis                | Mild         |
| [ Necrosis TGLS = 9-14 ]                |                           |                         |              |
| Oral Mucosa                             | Pharyngeal                | Squamous Cell Papilloma |              |
| [ Squamous Cell Papilloma TGLS = 7-13 ] |                           |                         |              |
| * Parathyroid Gland                     |                           | Hyperplasia             | Mild         |
| * Spleen                                |                           | Fibrosis                | Moderate     |
| [ Fibrosis TGLS = 4-5 ]                 |                           |                         |              |
| * Testes                                | Bilateral, Interstit Cell | Adenoma                 |              |
| [ Adenoma TGLS = 2,5-9 ]                |                           |                         |              |
| * Thyroid Gland                         | Follicular Cel            | Carcinoma               |              |
| [ Carcinoma TGLS = 3-3 ]                |                           |                         |              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 584

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-050

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Bone                    | * Epididymis                | * Esophagus              |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             | * Parathyroid Gland      |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Skin                   |
| * Thyroid Gland            | * Trachea                 |                             |                          |

MISSING

- \* Larynx

OBSERVATIONS

- |                          |        |  |          |
|--------------------------|--------|--|----------|
| * Adrenal Cortex         |        | Leukemia Mononuclear   |          |
| * Adrenal Medulla        |        | Leukemia Mononuclear   |          |
|                          |        | Pheochromocytoma Benign  |          |
| * Bone Marrow            |        | Leukemia Mononuclear   |          |
| * Brain                  |        | Leukemia Mononuclear   |          |
| Eye                      | Lens   | Cataract   | Marked   |
|                          | Retina | Degeneration   | Moderate |
|                          |        | [ Cataract TGLS = 8-13 ]   |          |
|                          |        | [ Degeneration TGLS = 8-13 ]   |          |
| * Heart                  |        | Cardiomyopathy   | Mild     |
|                          |        | Leukemia Mononuclear   |          |
| * Intestine Large, Cecum |        | Leukemia Mononuclear   |          |
| * Kidney                 |        | Leukemia Mononuclear   |          |
|                          |        | Nephropathy  | Mild     |
|                          |        | Pigmentation   | Moderate |
| * Larynx                 |        |  |          |
|                          |        | Note: The larynx is present, but the correct area for evaluation was not obtained. |          |
| * Liver                  |        | Leukemia Mononuclear   |          |
|                          |        | [ Leukemia Mononuclear TGLS = 5-5 ]  |          |
| * Lung                   |        | Leukemia Mononuclear   |          |
|                          |        | [ Leukemia Mononuclear TGLS = 2-6 ]  |          |
| * Lymph Node, Bronchial  |        | Leukemia Mononuclear   |          |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 584

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-050

ORGAN AND ACCOUNTABLE SITE STATUS

|                           |                |                                     |          |
|---------------------------|----------------|-------------------------------------|----------|
| * Lymph Node, Mandibular  |                | Leukemia Mononuclear                |          |
| * Lymph Node, Mediastinal |                | Leukemia Mononuclear                |          |
| * Lymph Node, Mesenteric  |                | Leukemia Mononuclear                |          |
| * Nose                    |                | Leukemia Mononuclear                |          |
| * Pancreas                | Acinus         | Atrophy                             | Mild     |
| * Pituitary Gland         | Pars Distalis  | Hyperplasia                         | Mild     |
|                           |                | Leukemia Mononuclear                |          |
| * Preputial Gland         |                | Leukemia Mononuclear                |          |
| * Spleen                  |                | Leukemia Mononuclear                |          |
|                           |                | Necrosis                            | Moderate |
|                           |                | [ Leukemia Mononuclear TGLS = 6-5 ] |          |
|                           |                | [ Necrosis TGLS = 7-5 ]             |          |
| * Stomach, Forestomach    |                | Hyperplasia                         | Moderate |
|                           |                | Ulcer                               | Moderate |
| * Stomach, Glandular      |                | Necrosis                            | Mild     |
| * Testes                  | Interstit Cell | Adenoma                             |          |
|                           | Bilateral      | Atrophy                             | Mild     |
|                           | Interstit Cell | Hyperplasia                         | Mild     |
|                           |                | [ Atrophy TGLS = 3-9 ]              |          |
| * Thymus                  |                | Leukemia Mononuclear                |          |
| * Urinary Bladder         |                | Leukemia Mononuclear                |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 101

TRT#: 2

SEX: Male

DAY ON TEST: 601

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-101

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | * Blood Vessel           | * Brain                    | * Epididymis              |
| * Esophagus                 | * Heart                  | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Nose                     | * Pancreas                |
| * Parathyroid Gland         | * Preputial Gland        | * Prostate                 | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | * Stomach, Glandular       | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

MISSING

\* Mammary Gland

OBSERVATIONS

|                           |               |  |         |
|---------------------------|---------------|--|---------|
| * Adrenal Cortex          |               | Vacuolization Cytoplasmic                  | Mild    |
| * Bone                    |               | Histiocytic Sarcoma                        |         |
|                           | Turbinates    | Hyperostosis                               | Mild    |
| * Bone Marrow             |               | Histiocytic Sarcoma                        |         |
| * Intestine Large, Cecum  |               | Inflammation                               | Mild    |
| * Kidney                  |               | Histiocytic Sarcoma                        |         |
|                           |               | Nephropathy                                | Minimal |
|                           |               | [ Histiocytic Sarcoma TGLS = 10-13 ]       |         |
| * Liver                   |               | Histiocytic Sarcoma                        |         |
|                           |               | [ Histiocytic Sarcoma TGLS = 7-5 ]         |         |
| * Lung                    |               | Histiocytic Sarcoma                        |         |
|                           |               | [ Histiocytic Sarcoma TGLS = 3-6,15 ]      |         |
| * Lymph Node, Bronchial   |               | Histiocytic Sarcoma                        |         |
| * Lymph Node, Mediastinal |               | Histiocytic Sarcoma                        |         |
|                           |               | [ Histiocytic Sarcoma TGLS = 11-16,4-16 ]  |         |
| * Lymph Node, Mesenteric  |               | Histiocytic Sarcoma                        |         |
| * Parathyroid Gland       |               |  |         |
|                           |               | Note: TGLs = 2-3 = no corresponding lesion |         |
| * Pituitary Gland         | Pars Distalis | Hyperplasia                                | Minimal |
| Skeletal Muscle           |               | Histiocytic Sarcoma                        |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 101 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 601   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-101 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                           |   |          |
|---|---------------------------|---|----------|
| [ Histiocytic Sarcoma TGLS = 1-16 ]             |                           |   |          |
| * Spleen  |                           | Hematopoietic Cell Proliferation<br>Histiocytic Sarcoma | Moderate |
| [ Hematopoietic Cell Proliferation TGLS = 5-5 ] |                           |   |          |
| [ Histiocytic Sarcoma TGLS = 6-5 ]              |                           |   |          |
| * Stomach, Forestomach                          |                           | Ulcer   | Minimal  |
| * Testes  | Bilateral, Interstit Cell | Adenoma   |          |
| [ Adenoma TGLS = 9-9 ]                          |                           |   |          |
| * Thymus  |                           | Histiocytic Sarcoma                                     |          |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 102

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-102

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Mammary Gland             | * Nose                   |
| * Parathyroid Gland        | * Preputial Gland         | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Trachea                  | * Urinary Bladder         |                             |                          |

OBSERVATIONS

|                          |  |                         |              |
|--------------------------|--|-------------------------|--------------|
| * Adrenal Medulla        |  | Pheochromocytoma Benign |              |
| * Bone Marrow            |  | Hyperplasia             | Mild         |
| * Kidney                 | Transit Epithe                           | Hyperplasia             | Mild         |
|                          |  | Leukemia Mononuclear    |              |
|                          |  | Nephropathy             | Moderate     |
|                          | [ Nephropathy TGLS = 3-7 ]               |                         |              |
| * Liver                  |  | Degeneration            | Cystic, Mild |
|                          |  | Leukemia Mononuclear    |              |
|                          | [ Leukemia Mononuclear TGLS = 6-5 ]      |                         |              |
| * Lung                   |  | Hemorrhage              | Minimal      |
| * Lymph Node, Mesenteric |  | Leukemia Mononuclear    |              |
| * Pancreas               | Duct                                     | Carcinoma               |              |
|                          | [ Carcinoma TGLS = 5-2 ]                 |                         |              |
| * Pituitary Gland        | Pars Distalis                            | Cyst                    | Moderate     |
|                          | [ Cyst TGLS = 7-1 ]                      |                         |              |
| * Prostate               |  | Inflammation            | Moderate     |
| * Spleen                 |  | Leukemia Mononuclear    |              |
|                          | [ Leukemia Mononuclear TGLS = 1-13,2-5 ] |                         |              |
| * Testes                 | Bilateral, Interstit Cell                | Adenoma                 |              |
|                          | [ Adenoma TGLS = 4-9 ]                   |                         |              |
| * Thyroid Gland          | C Cell                                   | Adenoma                 |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 102

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-102

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                                       |  |  |
|-----------------------|---------------------------------------|--|--|
| <b>ANIMAL ID:</b> 103 | <b>TRT#:</b> 2<br><b>DOSE:</b> 75 PPM | <b>SEX:</b> Male<br><b>DISP:</b> Natural Death | <b>DAY ON TEST:</b> 308<br><b>HISTO:</b> 90-5201-103 |
|-----------------------|---------------------------------------|--|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

|                           |                          |                     |                        |
|---------------------------|--------------------------|---------------------|------------------------|
| * Adrenal Cortex          | * Adrenal Medulla        | * Blood Vessel      | * Bone                 |
| * Brain                   | * Epididymis             | * Esophagus         | * Heart                |
| * Islets, Pancreatic      | * Kidney                 | * Liver             | * Lung                 |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Parathyroid Gland | * Preputial Gland      |
| * Prostate                | * Salivary Glands        | * Skin              | * Stomach, Forestomach |
| * Testes                  | * Thymus                 | * Trachea           |                        |

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**MISSING**

|                         |                 |
|-------------------------|-----------------|
| * Lymph Node, Bronchial | * Mammary Gland |
|-------------------------|-----------------|

---

**AUTO PRECLUDES DIAG.**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Bone Marrow               | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  |
| * Lymph Node, Mandibular    | * Nose                   | * Pancreas                 | * Seminal Vesicle         |
| * Spleen                    | * Stomach, Glandular     | * Thyroid Gland            | * Urinary Bladder         |

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**OBSERVATIONS**

|  |               |      |          |
|--|---------------|------|----------|
| * Kidney<br>Note: The kidneys are autolytic. |               |      |          |
| * Pituitary Gland<br>[ Cyst TGLS = 2-1 ]     | Pars Distalis | Cyst | Moderate |

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**PRIMARY CAUSE OF DEATH** -

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 104

TRT#: 2

SEX: Male

DAY ON TEST: 584

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-104

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Epididymis               | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Nose                   | * Parathyroid Gland        | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Spleen                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

MISSING

|          |                           |          |
|----------|---------------------------|----------|
| * Larynx | * Lymph Node, Mediastinal | * Thymus |
|----------|---------------------------|----------|

OBSERVATIONS

|   |                |                           |          |
|---|----------------|---------------------------|----------|
| * Kidney  |                | Nephropathy               | Mild     |
| * Larynx  |                |                           |          |
| Note: Larynx is present, but the correct area is unavailable. |                |                           |          |
| * Liver   |                | Vacuolization Cytoplasmic | Minimal  |
| * Pancreas  | Acinus         | Atrophy                   | Minimal  |
| * Pituitary Gland   | Pars Distalis  | Adenoma                   |          |
| [ Adenoma TGLS = 3-1 ]  |                |                           |          |
| * Preputial Gland   |                | Inflammation              | Moderate |
| [ Inflammation TGLS = 5-10 ]                                  |                |                           |          |
| * Skin  |                | Cyst Epithelial Inclusion |          |
| [ Cyst Epithelial Inclusion TGLS = 1-13 ]                     |                |                           |          |
| * Testes  | Bilateral      | Atrophy                   | Moderate |
|   | Interstit Cell | Hyperplasia               | Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 105

TRT#: 2

SEX: Male

DAY ON TEST: 619

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-105

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Parathyroid Gland       | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                   |                        |                           |         |
|-------------------|------------------------|---------------------------|---------|
| * Brain           |                        | Hydrocephalus             | Mild    |
| * Heart           |                        | Cardiomyopathy            | Mild    |
| * Kidney          |                        | Nephropathy               | Mild    |
| * Liver           |                        | Hemorrhage                | Minimal |
|                   |                        | Necrosis                  | Minimal |
|                   |                        | Vacuolization Cytoplasmic | Minimal |
| * Pancreas        | Acinus                 | Atrophy                   | Minimal |
| * Pituitary Gland | Pars Distalis          | Adenoma                   |         |
|                   | [ Adenoma TGLS = 2-1 ] |                           |         |
| * Testes          | Interstit Cell         | Hyperplasia               | Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 106

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-106

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    | * Pancreas                  |
| * Preputial Gland        | * Prostate                 | * Salivary Glands         | * Seminal Vesicle           |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Trachea                | * Urinary Bladder          |                           |                             |

MISSING

|                         |                     |
|-------------------------|---------------------|
| * Lymph Node, Bronchial | * Parathyroid Gland |
|-------------------------|---------------------|

OBSERVATIONS

|                                     |                           |                      |                        |
|-------------------------------------|---------------------------|----------------------|------------------------|
| * Heart                             |                           | Cardiomyopathy       | Minimal                |
| * Kidney                            |                           | Nephropathy          | Mild                   |
| * Liver                             |                           | Leukemia Mononuclear |                        |
| * Lung                              |                           | Inflammation         | Granulomatous, Minimal |
| * Lymph Node, Mediastinal           |                           | Pigmentation         | Mild                   |
| * Mammary Gland                     |                           | Galactocele          | Mild                   |
|                                     |                           | Hyperplasia          | Mild                   |
| [ Galactocele TGLS = 1-8 ]          |                           |                      |                        |
| [ Hyperplasia TGLS = 1-8 ]          |                           |                      |                        |
| * Pituitary Gland                   | Pars Distalis             | Angiectasis          | Marked                 |
|                                     | Pars Distalis             | Cyst                 | Mild                   |
| [ Angiectasis TGLS = 6-1 ]          |                           |                      |                        |
| * Spleen                            |                           | Leukemia Mononuclear |                        |
| [ Leukemia Mononuclear TGLS = 4-5 ] |                           |                      |                        |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |                        |
| [ Adenoma TGLS = 2,3-9 ]            |                           |                      |                        |
| * Thyroid Gland                     | Follicular Cel            | Carcinoma            |                        |
| [ Carcinoma TGLS = 5-3 ]            |                           |                      |                        |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 106

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-106

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 107

TRT#: 2

SEX: Male

DAY ON TEST: 596

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-107

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                      |                          |                           |
|-----------------------------|----------------------|--------------------------|---------------------------|
| * Adrenal Medulla           | * Blood Vessel       | * Bone                   | * Brain                   |
| * Epididymis                | * Esophagus          | * Intestine Large, Cecum | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Islets, Pancreatic | * Larynx                 | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Mammary Gland      | * Nose                   | * Pancreas                |
| * Parathyroid Gland         | * Preputial Gland    | * Prostate               | * Salivary Glands         |
| * Seminal Vesicle           | * Skin               | * Stomach, Forestomach   | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland      | * Trachea                | * Urinary Bladder         |

MISSING

\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Small, Ileum                      \* Intestine Small, Jejunum

OBSERVATIONS

|                                     |                           |                           |          |
|-------------------------------------|---------------------------|---------------------------|----------|
| * Adrenal Cortex                    |                           | Vacuolization Cytoplasmic | Minimal  |
| * Bone Marrow                       |                           | Leukemia Mononuclear      |          |
| * Heart                             | Atrium                    | Thrombosis                | Moderate |
| [ Thrombosis TGLS = 6-4 ]           |                           |                           |          |
| * Intestine Large, Colon            |                           | Hemorrhage                | Mild     |
|                                     |                           | Inflammation              | Marked   |
| * Kidney                            |                           | Nephropathy               | Minimal  |
| * Liver                             |                           | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 4-5 ] |                           |                           |          |
| * Lung                              |                           | Leukemia Mononuclear      |          |
| * Lymph Node, Mediastinal           |                           | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 5-5 ] |                           |                           |          |
| * Pituitary Gland                   | Pars Distalis             | Hyperplasia               | Mild     |
| * Spleen                            |                           | Leukemia Mononuclear      |          |
| * Testes                            | Bilateral, Interstit Cell | Adenoma                   |          |
| [ Adenoma TGLS = 2,3-9 ]            |                           |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 108

TRT#: 2

DOSE: 75 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 416

HISTO: 90-5201-108

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                         |
|---------------------------|-----------------------------|--------------------------|-------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                  |
| * Brain                   | * Epididymis                | * Esophagus              | * Heart                 |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic    |
| * Kidney                  | * Larynx                    | * Lung                   | * Lymph Node, Bronchial |
| * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                  |
| * Parathyroid Gland       | * Pituitary Gland           | * Preputial Gland        | * Salivary Glands       |
| * Seminal Vesicle         | * Skin                      | * Spleen                 | * Stomach, Glandular    |
| * Thymus                  | * Thyroid Gland             | * Trachea                | * Urinary Bladder       |

AUTO PRECLUDES DIAG.

|                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

|                              |                |                  |
|------------------------------|----------------|------------------|
| * Bone Marrow                | Hyperplasia    | Moderate         |
| * Liver                      | Fibrosis       | Minimal          |
|                              | Inflammation   | Chronic, Minimal |
| [ Fibrosis TGLS = 1-13 ]     |                |                  |
| [ Inflammation TGLS = 1-13 ] |                |                  |
| * Lymph Node, Mediastinal    | Hemorrhage     | Moderate         |
| * Pancreas                   | Inflammation   | Marked           |
| [ Inflammation TGLS = 7-2 ]  |                |                  |
| * Prostate                   | Inflammation   | Marked           |
| * Stomach, Forestomach       | Inflammation   | Mild             |
| * Testes                     | Interstit Cell | Hyperplasia      |
|                              |                | Minimal          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 109

TRT#: 2

DOSE: 75 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 654

HISTO: 90-5201-109

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Epididymis               |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Mammary Gland          | * Nose                     |
| * Pancreas                | * Preputial Gland           | * Salivary Glands        | * Seminal Vesicle          |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thyroid Gland            |
| * Trachea                 |                             |                          |                            |

MISSING

|                         |          |
|-------------------------|----------|
| * Lymph Node, Bronchial | * Thymus |
|-------------------------|----------|

OBSERVATIONS

|                           |                                     |                           |          |
|---------------------------|-------------------------------------|---------------------------|----------|
| * Adrenal Cortex          |                                     | Vacuolization Cytoplasmic | Mild     |
| * Adrenal Medulla         |                                     | Hyperplasia               | Mild     |
| * Bone Marrow             |                                     | Leukemia Mononuclear      |          |
| * Kidney                  |                                     | Cyst                      | Mild     |
|                           | Transit Epithe                      | Hyperplasia               | Mild     |
|                           |                                     | Leukemia Mononuclear      |          |
|                           |                                     | Nephropathy               | Moderate |
| * Liver                   |                                     | Leukemia Mononuclear      |          |
|                           | [ Leukemia Mononuclear TGLS = 6-5 ] |                           |          |
| * Lung                    |                                     | Leukemia Mononuclear      |          |
|                           | [ Leukemia Mononuclear TGLS = 4-6 ] |                           |          |
| * Lymph Node, Mandibular  |                                     | Leukemia Mononuclear      |          |
| * Lymph Node, Mediastinal |                                     | Edema                     | Mild     |
|                           | [ Edema TGLS = 3-5 ]                |                           |          |
|                           | [ Leukemia Mononuclear TGLS = 3-5 ] |                           |          |
| * Lymph Node, Mesenteric  |                                     | Leukemia Mononuclear      |          |
|                           | [ Leukemia Mononuclear TGLS = 9-8 ] |                           |          |
| * Parathyroid Gland       |                                     | Hyperplasia               | Mild     |
|                           | [ Hyperplasia TGLS = 2-3 ]          |                           |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:32

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 109

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 654

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-109

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|  |                |                      |         |
|--|----------------|----------------------|---------|
| * Pituitary Gland<br>[ Adenoma TGLS = 8-1 ]      | Pars Distalis  | Adenoma              |         |
| * Prostate                                       |                | Inflammation         | Marked  |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 5-13 ] |                | Leukemia Mononuclear |         |
| * Testes   | Interstit Cell | Hyperplasia          | Minimal |
| * Urinary Bladder                                |                | Hemorrhage           | Mild    |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 110

TRT#: 2

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-110

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Bone                    | * Bone Marrow               | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Larynx                  | * Lung                      | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Nose                      | * Parathyroid Gland      |
| * Preputial Gland          | * Salivary Glands         | * Seminal Vesicle           | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Trachea                   | * Urinary Bladder        |

OBSERVATIONS

|   |                   |                           |              |
|---|-------------------|---------------------------|--------------|
| * Adrenal Cortex                        |                   | Cytoplasmic Alteration    | Mild         |
|   |                   | Vacuolization Cytoplasmic | Minimal      |
| * Adrenal Medulla                       |                   | Hyperplasia               | Mild         |
| * Islets, Pancreatic                    |                   | Hyperplasia               | Mild         |
| * Kidney                                |                   | Nephropathy               | Mild         |
| [ Nephropathy TGLS = 6-7 ]              |                   |                           |              |
| * Liver                                 |                   | Clear Cell Focus          | Mild         |
|   |                   | Degeneration              | Cystic, Mild |
|   |                   | Eosinophilic Focus        | Mild         |
| [ Clear Cell Focus TGLS = 7-5 ]         |                   |                           |              |
| * Lymph Node, Mesenteric                |                   | Hemorrhage                | Minimal      |
| * Mammary Gland                         |                   | Fibroadenoma              | Multiple     |
| [ Fibroadenoma TGLS = 1-8,14 ]          |                   |                           |              |
| * Pancreas                              | Acinus            | Atrophy                   | Moderate     |
| * Pituitary Gland                       | Pars Distalis     | Adenoma                   |              |
| [ Adenoma TGLS = 9-1 ]                  |                   |                           |              |
| * Prostate                              |                   | Inflammation              | Mild         |
| * Skin                                  |                   | Squamous Cell Papilloma   |              |
| [ Squamous Cell Papilloma TGLS = 8-13 ] |                   |                           |              |
| * Spleen                                |                   | Depletion Cellular        | Mild         |
| [ Depletion Cellular TGLS = 5-5 ]       |                   |                           |              |
| * Testes                                | Interstitial Cell | Adenoma                   |              |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 110 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 734   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-110 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |        |             |      |
|------------------------|--------|-------------|------|
| [ Adenoma TGLS = 2-9 ] |        |             |      |
| * Thyroid Gland        | C Cell | Hyperplasia | Mild |
| PRIMARY CAUSE OF DEATH | -      |             |      |

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 111

TRT#: 2

SEX: Male

DAY ON TEST: 634

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-111

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                          |                           |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Medulla           | * Blood Vessel           | * Bone                   | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic     | * Larynx                  |
| * Mammary Gland             | * Parathyroid Gland      | * Pituitary Gland        | * Preputial Gland         |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland          | * Trachea                 |
| * Urinary Bladder           |                          |                          |                           |

AUTO PRECLUDES DIAG.

- \* Intestine Small, Jejunum

OBSERVATIONS

- |  |                           |                           |         |
|--|---------------------------|---------------------------|---------|
| * Adrenal Cortex                       |                           | Vacuolization Cytoplasmic | Mild    |
| * Bone Marrow                          |                           | Leukemia Mononuclear      |         |
| * Brain                                |                           | Leukemia Mononuclear      |         |
| * Heart                                |                           | Leukemia Mononuclear      |         |
| * Kidney                               |                           | Leukemia Mononuclear      |         |
| * Liver                                |                           | Leukemia Mononuclear      |         |
| [ Leukemia Mononuclear TGLS = 5-5 ]    |                           |                           |         |
| * Lung                                 |                           | Leukemia Mononuclear      |         |
| * Lymph Node, Bronchial                |                           | Leukemia Mononuclear      |         |
| * Lymph Node, Mandibular               |                           | Leukemia Mononuclear      |         |
| * Lymph Node, Mediastinal              |                           | Leukemia Mononuclear      |         |
| * Lymph Node, Mesenteric               |                           | Leukemia Mononuclear      |         |
| [ Leukemia Mononuclear TGLS = 6-8 ]    |                           |                           |         |
| * Nose                                 |                           | Inflammation              | Minimal |
| * Pancreas                             |                           | Leukemia Mononuclear      |         |
| * Prostate                             |                           | Inflammation              | Minimal |
| * Spleen                               |                           | Leukemia Mononuclear      |         |
| [ Leukemia Mononuclear TGLS = 1,2-13 ] |                           |                           |         |
| * Testes                               | Bilateral, Interstit Cell | Adenoma                   |         |
| [ Adenoma TGLS = 3,4-9 ]               |                           |                           |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 111

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 634

**DOSE:** 75 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-111

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 112

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-112

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Liver                  |
| * Lung                     | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Nose                   |
| * Pancreas                 | * Parathyroid Gland       | * Preputial Gland           | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Spleen                    | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   |                          |

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

|  |                           |                         |                     |
|--|---------------------------|-------------------------|---------------------|
| * Adrenal Medulla                          | Bilateral                 | Pheochromocytoma Benign |                     |
| * Bone Marrow                              |                           | Hyperplasia             | Moderate            |
| * Kidney                                   | Transit Epithe            | Hyperplasia             | Moderate            |
|  |                           | Nephropathy             | Moderate            |
| [ Nephropathy TGLS = 7-7 ]                 |                           |                         |                     |
| Lymph Node                                 | Lumbar                    | Hyperplasia             | Plasma Cell, Marked |
| [ Hyperplasia TGLS = 8-13 ]                |                           |                         |                     |
| * Lymph Node, Mediastinal                  |                           | Hyperplasia             | Plasma Cell, Mild   |
| * Mammary Gland                            |                           | Galactocele             | Mild                |
| [ Galactocele TGLS = 2-15 ]                |                           |                         |                     |
| * Parathyroid Gl                           |                           |                         |                     |
| Note: TGLs = 9-3 = no corresponding lesion |                           |                         |                     |
| * Pituitary Gland                          | Pars Distalis             | Adenoma                 |                     |
| [ Adenoma TGLS = 10-1 ]                    |                           |                         |                     |
| * Prostate                                 |                           | Inflammation            | Marked              |
| [ Inflammation TGLS = 5-10 ]               |                           |                         |                     |
| * Stomach, Forestomach                     |                           | Ulcer                   | Moderate            |
| [ Ulcer TGLS = 11-4 ]                      |                           |                         |                     |
| * Testes                                   | Bilateral, Interstit Cell | Adenoma                 |                     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 112

**TRT#:** 2  
**DOSE:** 75 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 734  
**HISTO:** 90-5201-112

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 3,4-9 ]

\* Urinary Bladder

Inflammation

Moderate

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 113

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-113

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Larynx                  | * Lymph Node, Bronchial     | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Parathyroid Gland       | * Preputial Gland           | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   |                          |

OBSERVATIONS

|                                     |                           |                      |              |
|-------------------------------------|---------------------------|----------------------|--------------|
| * Adrenal Cortex                    |                           | Degeneration         | Cystic, Mild |
| * Bone Marrow                       |                           | Hyperplasia          | Mild         |
| * Islets, Pancreatic                |                           | Carcinoma            |              |
| * Kidney                            |                           | Nephropathy          | Mild         |
| * Liver                             |                           | Leukemia Mononuclear |              |
| * Lung                              |                           | Leukemia Mononuclear |              |
| * Lymph Node, Mediastinal           |                           | Leukemia Mononuclear |              |
| [ Leukemia Mononuclear TGLS = 6-5 ] |                           |                      |              |
| * Mammary Gland                     |                           | Hyperplasia          | Mild         |
| * Nose                              | Respirat Epith            | Hyperplasia          | Mild         |
|                                     |                           | Inflammation         | Moderate     |
| * Pancreas                          | Acinus                    | Atrophy              | Mild         |
| * Pituitary Gland                   | Pars Distalis             | Adenoma              | Multiple     |
| [ Adenoma TGLS = 5-1 ]              |                           |                      |              |
| * Prostate                          |                           | Hyperplasia          | Minimal      |
|                                     |                           | Inflammation         | Mild         |
| * Spleen                            |                           | Leukemia Mononuclear |              |
| [ Leukemia Mononuclear TGLS = 1-5 ] |                           |                      |              |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |              |
| [ Adenoma TGLS = 2,3-9 ]            |                           |                      |              |
| * Urinary Bladder                   | Transit Epithe            | Papilloma            |              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 114

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-114

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Bone Marrow            | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Bronchial    |
| * Lymph Node, Mandibular  | * Nose                      | * Pancreas               | * Parathyroid Gland        |
| * Salivary Glands         | * Seminal Vesicle           | * Skin                   | * Spleen                   |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           |                          |                            |

OBSERVATIONS

|                           |   |                            |              |
|---------------------------|---|----------------------------|--------------|
| * Adrenal Cortex          |   | Vacuolization Cytoplasmic  | Mild         |
| * Adrenal Medulla         |   | Pheochromocytoma Benign    |              |
|                           |   | Pheochromocytoma Malignant |              |
|                           | [ Pheochromocytoma Malignant TGLS = 2-3 ] |                            |              |
| * Heart                   |   | Cardiomyopathy             | Mild         |
| * Kidney                  |   | Nephropathy                | Moderate     |
|                           | [ Nephropathy TGLS = 7-7 ]                |                            |              |
| * Liver                   |   | Clear Cell Focus           | Minimal      |
|                           |   | Degeneration               | Cystic, Mild |
|                           |   | Eosinophilic Focus         | Mild         |
|                           |   | Vacuolization Cytoplasmic  | Minimal      |
| * Lymph Node, Mediastinal |   | Pigmentation               | Mild         |
| * Lymph Node, Mesenteric  |   | Hemorrhage                 | Minimal      |
| * Mammary Gland           |   | Hyperplasia                | Mild         |
| * Pituitary Gland         | Pars Distalis                             | Adenoma                    |              |
|                           | [ Adenoma TGLS = 5,6-1 ]                  |                            |              |
| * Preputial Gland         |   | Hyperplasia                | Moderate     |
|                           | [ Hyperplasia TGLS = 1-10 ]               |                            |              |
| * Prostate                |   | Inflammation               | Mild         |
| * Testes                  | Bilateral, Interstit Cell                 | Adenoma                    |              |
|                           | [ Adenoma TGLS = 3,4-9 ]                  |                            |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 114

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-114

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 115

TRT#: 2

SEX: Male

DAY ON TEST: 631

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-115

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                         |                          |
|---------------------------|-----------------------------|-------------------------|--------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel          | * Bone                   |
| * Bone Marrow             | * Epididymis                | * Esophagus             | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic    | * Larynx                 |
| * Liver                   | * Lung                      | * Lymph Node, Bronchial | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric  | * Pancreas                  | * Parathyroid Gland     | * Preputial Gland        |
| * Prostate                | * Salivary Glands           | * Seminal Vesicle       | * Skin                   |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular    | * Thymus                 |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder       |                          |

AUTO PRECLUDES DIAG.

|                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

|                           |                            |                |          |
|---------------------------|----------------------------|----------------|----------|
| * Brain                   |                            | Hydrocephalus  | Mild     |
| * Heart                   |                            | Cardiomyopathy | Mild     |
| * Kidney                  |                            | Nephropathy    | Mild     |
| * Lymph Node, Mediastinal |                            | Hemorrhage     | Mild     |
|                           |                            | Pigmentation   | Minimal  |
| * Mammary Gland           |                            | Galactoceles   | Moderate |
| * Nose                    | Respirat Epith             | Hyperplasia    | Minimal  |
| * Pituitary Gland         | Pars Distalis              | Angiectasis    | Moderate |
|                           | [ Angiectasis TGLS = 2-1 ] |                |          |
| * Testes                  | Interstit Cell             | Hyperplasia    | Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 116

TRT#: 2

DOSE: 75 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 720

HISTO: 90-5201-116

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Nose                   | * Pancreas                 | * Parathyroid Gland       | * Preputial Gland           |
| * Salivary Glands        | * Seminal Vesicle          | * Skin                    | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                                     |                |                      |          |
|-------------------------------------|----------------|----------------------|----------|
| * Epididymis                        |                | Granuloma Sperm      | Moderate |
| [ Granuloma Sperm TGLS = 9-9 ]      |                |                      |          |
| * Kidney                            | Transit Epithe | Hyperplasia          | Minimal  |
|                                     |                | Nephropathy          | Moderate |
| [ Nephropathy TGLS = 2-7 ]          |                |                      |          |
| * Liver                             |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 8-5 ] |                |                      |          |
| * Mammary Gland                     |                | Galactocele          | Mild     |
| * Pituitary Gland                   | Pars Distalis  | Adenoma              |          |
| [ Adenoma TGLS = 6-1 ]              |                |                      |          |
| * Prostate                          |                | Inflammation         | Moderate |
| * Spleen                            |                | Leukemia Mononuclear |          |
| * Testes                            | Interstit Cell | Adenoma              |          |
|                                     | Bilateral      | Atrophy              | Moderate |
|                                     | Interstit Cell | Hyperplasia          | Mild     |
| [ Atrophy TGLS = 4,5-9 ]            |                |                      |          |
| * Thyroid Gland                     | C Cell         | Adenoma              |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 117

TRT#: 2

SEX: Male

DAY ON TEST: 560

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-117

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Epididymis               | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Parathyroid Gland        | * Salivary Glands         | * Seminal Vesicle           |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          |                           |                             |

OBSERVATIONS

|   |                |                                  |          |
|---|----------------|----------------------------------|----------|
| * Bone Marrow                                   |                | Hyperplasia                      | Moderate |
| * Islets, Pancreatic                            |                | Adenoma                          |          |
| * Kidney  |                | Nephropathy                      | Mild     |
| * Larynx  |                | Inflammation                     | Mild     |
| * Liver   |                | Basophilic Focus                 | Minimal  |
|   |                | Hepatocellular Adenoma           |          |
| [ Hepatocellular Adenoma TGLS = 2-5 ]           |                |                                  |          |
| * Pancreas                                      | Acinus         | Atrophy                          | Mild     |
| * Pituitary Gland                               | Pars Distalis  | Adenoma                          |          |
| * Preputial Gland                               |                | Adenoma                          |          |
| [ Adenoma TGLS = 3-13 ]                         |                |                                  |          |
| * Prostate                                      |                | Inflammation                     | Mild     |
| * Skin  | Subcut Tiss    | Fibrosarcoma                     |          |
| [ Fibrosarcoma TGLS = 5-14 ]                    |                |                                  |          |
| * Spleen  |                | Hematopoietic Cell Proliferation | Moderate |
| [ Hematopoietic Cell Proliferation TGLS = 1-5 ] |                |                                  |          |
| * Testes  | Interstit Cell | Hyperplasia                      | Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 118

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-118

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mesenteric | * Parathyroid Gland        | * Preputial Gland         |
| * Salivary Glands           | * Seminal Vesicle        | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |                                     |                      |          |
|---------------------------|-------------------------------------|----------------------|----------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear |          |
| * Adrenal Medulla         |                                     | Leukemia Mononuclear |          |
| * Bone Marrow             |                                     | Leukemia Mononuclear |          |
| * Heart                   |                                     | Cardiomyopathy       | Mild     |
|                           |                                     | Leukemia Mononuclear |          |
| * Kidney                  | Transit Epithe                      | Hyperplasia          | Mild     |
|                           |                                     | Leukemia Mononuclear |          |
|                           |                                     | Nephropathy          | Mild     |
|                           | [ Leukemia Mononuclear TGLS = 5-7 ] |                      |          |
|                           | [ Nephropathy TGLS = 5-7 ]          |                      |          |
| * Liver                   |                                     | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 6-5 ] |                      |          |
| * Lung                    | Alveolar Epith                      | Hyperplasia          | Mild     |
|                           |                                     | Leukemia Mononuclear |          |
|                           | [ Hyperplasia TGLS = 7-6 ]          |                      |          |
| * Lymph Node, Mandibular  |                                     | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal |                                     | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 9-5 ] |                      |          |
| * Mammary Gland           |                                     | Inflammation         | Mild     |
| * Nose                    | Nasolacrim Dct                      | Inflammation         | Mild     |
| * Pancreas                | Acinus                              | Atrophy              | Moderate |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                                       |   |  |
|-----------------------|---------------------------------------|---|--|
| <b>ANIMAL ID:</b> 118 | <b>TRT#:</b> 2<br><b>DOSE:</b> 75 PPM | <b>SEX:</b> Male<br><b>DISP:</b> Terminal Sacrifice | <b>DAY ON TEST:</b> 734<br><b>HISTO:</b> 90-5201-118 |
|-----------------------|---------------------------------------|---|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                           |                           |                         |
|---|---------------------------|---------------------------|-------------------------|
| * Pituitary Gland<br>[ Adenoma TGLS = 8-1 ]                               | Pars Distalis             | Adenoma                   |                         |
| * Prostate  |                           | Inflammation              | Moderate                |
| * Skin  |                           | Cyst Epithelial Inclusion | Moderate                |
|   |                           | Inflammation              | Granulomatous, Moderate |
| [ Cyst Epithelial Inclusion TGLS = 1-13 ]<br>[ Inflammation TGLS = 1-13 ] |                           |                           |                         |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 2,3-14 ]                        |                           | Leukemia Mononuclear      |                         |
| * Testes<br>[ Adenoma TGLS = 4-9 ]  | Bilateral, Interstit Cell | Adenoma                   |                         |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 119

TRT#: 2

SEX: Male

DAY ON TEST: 637

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-119

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Mammary Gland            | * Nose                    |
| * Parathyroid Gland         | * Pituitary Gland        | * Preputial Gland          | * Salivary Glands         |
| * Seminal Vesicle           | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           |                          |                            |                           |

OBSERVATIONS

- |                           |                                     |                           |          |
|---------------------------|-------------------------------------|---------------------------|----------|
| * Adrenal Cortex          |                                     | Vacuolization Cytoplasmic | Mild     |
| * Adrenal Medulla         |                                     | Hyperplasia               | Minimal  |
| * Bone Marrow             |                                     | Leukemia Mononuclear      |          |
| * Heart                   | Atrium                              | Leukemia Mononuclear      |          |
|                           | [ Thrombosis TGLS = 6-4 ]           | Thrombosis                | Mild     |
| * Kidney                  |                                     | Nephropathy               | Minimal  |
|                           |                                     | Pigmentation              | Moderate |
| * Liver                   |                                     | Leukemia Mononuclear      |          |
| * Lung                    |                                     | Leukemia Mononuclear      |          |
| Lymph Node                | Pancreatic                          | Leukemia Mononuclear      |          |
|                           | [ Leukemia Mononuclear TGLS = 4-2 ] |                           |          |
| * Lymph Node, Bronchial   |                                     | Leukemia Mononuclear      |          |
| * Lymph Node, Mediastinal |                                     | Leukemia Mononuclear      |          |
|                           | [ Leukemia Mononuclear TGLS = 3-5 ] |                           |          |
| * Lymph Node, Mesenteric  |                                     | Leukemia Mononuclear      |          |
|                           | [ Leukemia Mononuclear TGLS = 5-8 ] |                           |          |
| * Pancreas                | Acinus                              | Atrophy                   | Minimal  |
| * Prostate                |                                     | Inflammation              | Mild     |
| * Skin                    |                                     | Keratoacanthoma           |          |
|                           | [ Keratoacanthoma TGLS = 1-13 ]     |                           |          |
| * Spleen                  |                                     | Leukemia Mononuclear      |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 119 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 637   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-119 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 2-5 ]

|                        |                |             |          |
|------------------------|----------------|-------------|----------|
| * Stomach, Forestomach |                | Hyperplasia | Mild     |
|                        |                | Ulcer       | Moderate |
| * Stomach, Glandular   |                | Necrosis    | Minimal  |
| * Testes               | Interstit Cell | Hyperplasia | Minimal  |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 120

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-120

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric    | * Nose                   | * Pancreas                 | * Parathyroid Gland       |
| * Preputial Gland           | * Salivary Glands        | * Seminal Vesicle          | * Skin                    |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Trachea                   | * Urinary Bladder        |                            |                           |

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

|                                  |                |                           |              |
|----------------------------------|----------------|---------------------------|--------------|
| * Adrenal Cortex                 |                | Vacuolization Cytoplasmic | Minimal      |
| * Adrenal Medulla                |                | Pheochromocytoma Benign   |              |
| * Bone Marrow                    |                | Hyperplasia               | Mild         |
| * Heart                          |                | Cardiomyopathy            | Minimal      |
| * Kidney                         |                | Cyst                      | Mild         |
|                                  | Transit Epithe | Hyperplasia               | Minimal      |
|                                  |                | Nephropathy               | Mild         |
| * Liver                          |                | Basophilic Focus          | Minimal      |
|                                  |                | Degeneration              | Cystic, Mild |
|                                  |                | Eosinophilic Focus        | Mild         |
|                                  |                | Fibrosis                  | Minimal      |
|                                  |                | Mixed Cell Focus          | Mild         |
|                                  |                |                           |              |
|                                  |                |                           |              |
|                                  |                |                           |              |
| [ Fibrosis TGLS = 5-14 ]         |                |                           |              |
| [ Mixed Cell Focus TGLS = 4-13 ] |                |                           |              |
| * Mammary Gland                  |                | Fibroadenoma              |              |
|                                  |                |                           |              |
| [ Fibroadenoma TGLS = 1-8 ]      |                |                           |              |
| * Pituitary Gland                | Pars Distalis  | Adenoma                   |              |
|                                  |                |                           |              |
| [ Adenoma TGLS = 6-1 ]           |                |                           |              |
| * Prostate                       |                | Inflammation              | Mild         |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 120 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 734   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-120 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                           |                    |      |
|------------------------|---------------------------|--------------------|------|
| * Testes               | Bilateral, Interstit Cell | Adenoma<br>Atrophy | Mild |
| [ Adenoma TGLS = 2-9 ] |                           |                    |      |
| [ Atrophy TGLS = 3-9 ] |                           |                    |      |
| * Thyroid Gland        | C Cell                    | Adenoma            |      |
| PRIMARY CAUSE OF DEATH | -                         |                    |      |

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 121

TRT#: 2

SEX: Male

DAY ON TEST: 584

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-121

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Bone Marrow            | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lymph Node, Mandibular    | * Lymph Node, Mesenteric | * Nose                     |
| * Parathyroid Gland       | * Prostate                  | * Salivary Glands        | * Seminal Vesicle          |
| * Skin                    | * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           |                          |                            |

OBSERVATIONS

|  |                |                           |          |
|--|----------------|---------------------------|----------|
| * Adrenal Cortex                         |                | Vacuolization Cytoplasmic | Mild     |
| * Adrenal Medulla                        |                | Pheochromocytoma Benign   |          |
| * Heart                                  |                | Leukemia Mononuclear      |          |
| * Kidney                                 |                | Pigmentation              | Moderate |
| * Larynx                                 | Respirat Epith | Hyperplasia               | Mild     |
| * Liver                                  |                | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 4-5 ]      |                |                           |          |
| * Lung                                   |                | Leukemia Mononuclear      |          |
| Lymph Node                               | Renal          | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 7,8-14 ]   |                |                           |          |
| * Lymph Node, Bronchial                  |                | Leukemia Mononuclear      |          |
| * Lymph Node, Mediastinal                |                | Leukemia Mononuclear      |          |
| * Mammary Gland                          |                | Pigmentation              | Mild     |
| Mesentery                                | Fat            | Necrosis                  | Moderate |
| [ Necrosis TGLS = 5-8 ]                  |                |                           |          |
| * Pancreas                               | Acinus         | Atrophy                   | Mild     |
| * Pituitary Gland                        | Pars Distalis  | Angiectasis               | Mild     |
|  | Pars Distalis  | Hyperplasia               | Minimal  |
| * Preputial Gland                        |                | Inflammation              | Moderate |
| [ Inflammation TGLS = 1-10 ]             |                |                           |          |
| * Spleen                                 |                | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 2-5;3-15 ] |                |                           |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 121 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 584   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-121 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                |                      |          |
|------------------------|----------------|----------------------|----------|
| * Stomach, Forestomach |                | Hyperplasia          | Mild     |
|                        |                | Leukemia Mononuclear |          |
|                        |                | Ulcer                | Mild     |
| * Testes               | Interstit Cell | Adenoma              |          |
|                        |                | Atrophy              | Moderate |
|                        | Interstit Cell | Hyperplasia          | Minimal  |
| [ Atrophy TGLS = 9-9 ] |                |                      |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 122

TRT#: 2

SEX: Male

DAY ON TEST: 244

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-122

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Preputial Gland         | * Prostate                  | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Testes                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                              |               |                |                          |
|------------------------------|---------------|----------------|--------------------------|
| * Bone Marrow                |               | Inflammation   | Moderate                 |
| * Heart                      |               | Cardiomyopathy | Mild                     |
| * Kidney                     |               | Inflammation   | Minimal                  |
| * Liver                      | Bile Duct     | Inflammation   | Suppurative, Moderate    |
|                              |               | Inflammation   | Chronic Active, Moderate |
|                              |               | Necrosis       | Mild                     |
| [ Inflammation TGLS = 1-5 ]  |               |                |                          |
| [ Necrosis TGLS = 1-5 ]      |               |                |                          |
| * Lung                       |               | Inflammation   | Acute, Mild              |
| Mesentery                    |               | Inflammation   | Marked                   |
| [ Inflammation TGLS = 4-13 ] |               |                |                          |
| * Pancreas                   |               | Inflammation   | Marked                   |
| [ Inflammation TGLS = 3-13 ] |               |                |                          |
| * Pituitary Gland            | Pars Distalis | Cyst           | Mild                     |
| * Thymus                     |               | Hemorrhage     | Mild                     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 123

TRT#: 2

SEX: Male

DAY ON TEST: 668

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-123

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          | * Seminal Vesicle         |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

OBSERVATIONS

|                           |   |                           |          |
|---------------------------|---|---------------------------|----------|
| * Adrenal Cortex          |   | Vacuolization Cytoplasmic | Mild     |
| * Adrenal Medulla         |   | Hyperplasia               | Moderate |
| * Bone Marrow             |   | Hyperplasia               | Marked   |
| * Heart                   |   | Cardiomyopathy            | Moderate |
| * Kidney                  |   | Nephropathy               | Mild     |
| * Liver                   |   | Hepatocellular Adenoma    |          |
|                           |   | Necrosis                  | Mild     |
|                           | [ Hepatocellular Adenoma TGLS = 6-5 ]   |                           |          |
| * Lymph Node, Bronchial   |   | Hemorrhage                | Minimal  |
| * Lymph Node, Mediastinal |   | Hemorrhage                | Minimal  |
| * Mammary Gland           |   | Galactocele               | Minimal  |
| * Nose                    |   | Foreign Body              | Mild     |
|                           |   | Inflammation              | Mild     |
| * Pituitary Gland         | Pars Distalis   | Adenoma                   |          |
|                           | [ Adenoma TGLS = 5-1 ]  |                           |          |
| * Preputial Gland         |   | Inflammation              | Moderate |
|                           | Note: The preputial glands are involved in the ventral tumor.   |                           |          |
| * Prostate                |   | Inflammation              | Mild     |
| * Skin                    |   | Cyst Epithelial Inclusion | Moderate |
|                           | Subcut Tiss   | Sarcoma                   |          |
|                           | Note: The skin tumor involves the preputial glands and mammary gland. It may represent a very anaplastic carcinoma. |                           |          |
|                           | [ Cyst Epithelial Inclusion TGLS = 1-13 ]   |                           |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 123 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 668   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-123 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                |                                  |          |
|---|----------------|----------------------------------|----------|
| [ Sarcoma TGLS = 2-14 ]                         |                |                                  |          |
| * Spleen  |                | Hematopoietic Cell Proliferation | Moderate |
| [ Hematopoietic Cell Proliferation TGLS = 3-5 ] |                |                                  |          |
| * Testes  | Bilateral      | Atrophy                          | Moderate |
|   | Interstit Cell | Hyperplasia                      | Minimal  |
| [ Atrophy TGLS = 4-9 ]                          |                |                                  |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:32

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 124

TRT#: 2

SEX: Male

DAY ON TEST: 538

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-124

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                            |                          |                           |
|-----------------------------|----------------------------|--------------------------|---------------------------|
| * Adrenal Medulla           | * Blood Vessel             | * Bone                   | * Brain                   |
| * Epididymis                | * Esophagus                | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic     | * Lung                    |
| * Lymph Node, Mandibular    | * Mammary Gland            | * Nose                   | * Parathyroid Gland       |
| * Pituitary Gland           | * Preputial Gland          | * Salivary Glands        | * Stomach, Forestomach    |
| * Trachea                   |                            |                          |                           |

MISSING

- |                         |          |
|-------------------------|----------|
| * Lymph Node, Bronchial | * Thymus |
|-------------------------|----------|

AUTO PRECLUDES DIAG.

- \* Intestine Small, Ileum

OBSERVATIONS

- |   |        |                           |          |
|---|--------|---------------------------|----------|
| * Adrenal Cortex                                  |        | Vacuolization Cytoplasmic | Minimal  |
| * Bone Marrow                                     |        | Hyperplasia               | Marked   |
| * Heart   |        | Cardiomyopathy            | Mild     |
| * Intestine Large, Cecum                          |        | Inflammation              | Mild     |
|   |        | Necrosis                  | Mild     |
| * Kidney  |        | Nephropathy               | Minimal  |
| * Larynx  |        | Inflammation              | Marked   |
|   |        | Necrosis                  | Moderate |
| * Liver   |        | Hemorrhage                | Moderate |
|   |        | Necrosis                  | Marked   |
|   |        | Vacuolization Cytoplasmic | Mild     |
| * Lung  |        |                           |          |
| Note: There is moderate leukocytosis in the lung. |        |                           |          |
| Lymph Node  | Lumbar | Hemorrhage                | Moderate |
| [ Hemorrhage TGLS = 6-13 ]                        |        |                           |          |
| * Lymph Node, Mediastinal                         |        | Hemorrhage                | Marked   |
| [ Hemorrhage TGLS = 2-5 ]                         |        |                           |          |
| * Lymph Node, Mesenteric                          |        | Hemorrhage                | Marked   |
| * Pancreas  | Acinus | Atrophy                   | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:32  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                            |                           |
|-----------------------|---------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 124 | <b>TRT#:</b> 2      | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 538   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-124 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|  |                           |                          |              |
|--|---------------------------|--------------------------|--------------|
| * Prostate<br>[ Inflammation TGLS = 4-10 ]       |                           | Inflammation             | Marked       |
| * Seminal Vesicle                                |                           | Inflammation             | Marked       |
| * Skin<br>[ Inflammation TGLS = 1-14 ]           | Subcut Tiss               | Inflammation             | Marked       |
| * Spleen<br>[ Congestion TGLS = 3-5 ]            |                           | Congestion               | Moderate     |
| * Stomach, Glandular                             |                           | Ulcer                    | Moderate     |
| * Testes   | Bilateral, Interstit Cell | Adenoma                  |              |
| * Thyroid Gland                                  | C Cell                    | Hyperplasia              | Mild         |
| * Urinary Bladder<br>[ Inflammation TGLS = 5-7 ] |                           | Inflammation<br>Necrosis | Mild<br>Mild |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 125

TRT#: 2

SEX: Male

DAY ON TEST: 693

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-125

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Brain                   | * Epididymis                |
| * Esophagus              | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Parathyroid Gland      | * Salivary Glands          | * Seminal Vesicle         | * Thyroid Gland             |
| * Trachea                |                            |                           |                             |

OBSERVATIONS

- |                                      |                |                      |          |
|--------------------------------------|----------------|----------------------|----------|
| * Adrenal Cortex                     |                | Leukemia Mononuclear |          |
| * Adrenal Medulla                    |                | Leukemia Mononuclear |          |
| * Bone Marrow                        |                | Leukemia Mononuclear |          |
| * Heart                              |                | Leukemia Mononuclear |          |
| * Intestine Large, Cecum             |                | Leukemia Mononuclear |          |
| * Kidney                             |                | Leukemia Mononuclear |          |
|                                      |                | Nephropathy          | Mild     |
| [ Leukemia Mononuclear TGLS = 9-7 ]  |                |                      |          |
| * Liver                              |                | Leukemia Mononuclear |          |
| * Lung                               |                | Leukemia Mononuclear |          |
| Lymph Node                           | Pancreatic     | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 6-2 ]  |                |                      |          |
| * Lymph Node, Bronchial              |                | Leukemia Mononuclear |          |
| * Lymph Node, Mandibular             |                | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal            |                | Leukemia Mononuclear |          |
| * Lymph Node, Mesenteric             |                | Leukemia Mononuclear |          |
| * Mammary Gland                      |                | Galactocele          | Moderate |
| * Nose                               |                | Foreign Body         | Mild     |
|                                      | Respirat Epith | Hyperplasia          | Mild     |
|                                      |                | Inflammation         | Mild     |
| * Pancreas                           |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 12-2 ] |                |                      |          |
| * Pituitary Gland                    | Pars Distalis  | Leukemia Mononuclear |          |
| * Preputial Gland                    |                | Inflammation         | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 125 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 693   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-125 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                           |                           |          |
|---|---------------------------|---------------------------|----------|
| [ Inflammation TGLS = 2-10 ]              |                           |                           |          |
| * Prostate                                |                           | Inflammation              | Moderate |
| * Skin                                    |                           | Cyst Epithelial Inclusion |          |
| [ Cyst Epithelial Inclusion TGLS = 3-14 ] |                           |                           |          |
| * Spleen                                  |                           | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 5-13 ]      |                           |                           |          |
| * Stomach, Forestomach                    |                           | Leukemia Mononuclear      |          |
| * Stomach, Glandular                      |                           | Mineralization            | Mild     |
| * Testes                                  | Bilateral, Interstit Cell | Adenoma                   |          |
|   |                           | Atrophy                   | Moderate |
| [ Adenoma TGLS = 7-9 ]                    |                           |                           |          |
| [ Atrophy TGLS = 8-9 ]                    |                           |                           |          |
| * Thymus                                  |                           | Leukemia Mononuclear      |          |
| * Urinary Bladder                         | Transit Epithe            | Hyperplasia               | Mild     |
|   |                           | Leukemia Mononuclear      |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 126

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-126

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Larynx                  | * Lung                      | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Pancreas               |
| * Parathyroid Gland        | * Preputial Gland         | * Prostate                  | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

OBSERVATIONS

|                            |                           |                    |                 |
|----------------------------|---------------------------|--------------------|-----------------|
| * Bone Marrow              |                           | Hyperplasia        | Mild            |
| * Heart                    |                           | Cardiomyopathy     | Mild            |
| * Islets, Pancreatic       |                           | Adenoma            |                 |
|                            |                           | Hyperplasia        | Moderate        |
| * Kidney                   |                           | Nephropathy        | Mild            |
| * Liver                    |                           | Degeneration       | Cystic, Minimal |
|                            |                           | Eosinophilic Focus | Mild            |
| * Lymph Node, Mediastinal  |                           | Hemorrhage         | Mild            |
| Mesentery                  | Fat                       | Necrosis           | Moderate        |
| [ Necrosis TGLS = 1-13 ]   |                           |                    |                 |
| * Nose                     | Respirat Epith            | Hyperplasia        | Minimal         |
| * Pituitary Gland          | Pars Distalis             | Angiectasis        | Moderate        |
|                            | Pars Distalis             | Hemorrhage         | Moderate        |
|                            | Pars Distalis             | Hyperplasia        | Mild            |
| [ Angiectasis TGLS = 5-1 ] |                           |                    |                 |
| [ Hemorrhage TGLS = 5-1 ]  |                           |                    |                 |
| * Testes                   | Bilateral, Interstit Cell | Adenoma            |                 |
| [ Adenoma TGLS = 2,3-9 ]   |                           |                    |                 |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 127

TRT#: 2

SEX: Male

DAY ON TEST: 695

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-127

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                            |                      |                          |
|-----------------------------|----------------------------|----------------------|--------------------------|
| * Blood Vessel              | * Bone                     | * Esophagus          | * Intestine Large, Colon |
| * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx                 |
| * Mammary Gland             | * Nose                     | * Parathyroid Gland  | * Pituitary Gland        |
| * Salivary Glands           | * Skin                     | * Thyroid Gland      | * Trachea                |

AUTO PRECLUDES DIAG.

\* Intestine Large, Cecum

OBSERVATIONS

|                                     |                         |                 |
|-------------------------------------|-------------------------|-----------------|
| * Adrenal Cortex                    | Leukemia Mononuclear    |                 |
| * Adrenal Medulla                   | Pheochromocytoma Benign |                 |
| * Bone Marrow                       | Leukemia Mononuclear    |                 |
| * Brain                             | Leukemia Mononuclear    |                 |
| * Epididymis                        | Leukemia Mononuclear    |                 |
| * Heart                             | Leukemia Mononuclear    |                 |
| * Intestine Large, Rectum           | Leukemia Mononuclear    |                 |
| * Intestine Small, Ileum            | Leukemia Mononuclear    |                 |
| * Kidney                            | Leukemia Mononuclear    |                 |
|                                     | Nephropathy             | Minimal         |
| * Liver                             | Degeneration            | Cystic, Minimal |
|                                     | Leukemia Mononuclear    |                 |
| [ Leukemia Mononuclear TGLS = 1-5 ] |                         |                 |
| * Lung                              | Leukemia Mononuclear    |                 |
| [ Leukemia Mononuclear TGLS = 2-6 ] |                         |                 |
| * Lymph Node, Bronchial             | Leukemia Mononuclear    |                 |
| * Lymph Node, Mandibular            | Leukemia Mononuclear    |                 |
| * Lymph Node, Mediastinal           | Leukemia Mononuclear    |                 |
| * Lymph Node, Mesenteric            | Leukemia Mononuclear    |                 |
| [ Leukemia Mononuclear TGLS = 6-8 ] |                         |                 |
| * Pancreas                          | Leukemia Mononuclear    |                 |
| * Preputial Gland                   | Leukemia Mononuclear    |                 |
| * Prostate                          | Inflammation            | Moderate        |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                            |                           |
|-----------------------|---------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 127 | <b>TRT#:</b> 2      | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 695   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-127 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                                     |                      |          |
|------------------------|-------------------------------------|----------------------|----------|
| * Seminal Vesicle      |                                     | Leukemia Mononuclear |          |
| * Spleen               |                                     | Leukemia Mononuclear |          |
|                        | [ Leukemia Mononuclear TGLS = 5-5 ] | Leukemia Mononuclear |          |
| * Stomach, Forestomach |                                     | Leukemia Mononuclear |          |
|                        |                                     | Ulcer                | Moderate |
| * Stomach, Glandular   |                                     | Leukemia Mononuclear |          |
| * Testes               | Bilateral, Interstit Cell           | Adenoma              |          |
|                        | [ Adenoma TGLS = 3,4-9 ]            |                      |          |
| * Thymus               |                                     | Leukemia Mononuclear |          |
| * Urinary Bladder      |                                     | Leukemia Mononuclear |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 128

TRT#: 2

SEX: Male

DAY ON TEST: 718

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-128

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mesenteric | * Parathyroid Gland        | * Salivary Glands         |
| * Seminal Vesicle           | * Stomach, Glandular     | * Thymus                   | * Trachea                 |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |                                       |                         |                  |
|---------------------------|---------------------------------------|-------------------------|------------------|
| * Adrenal Cortex          |                                       | Leukemia Mononuclear    |                  |
| * Adrenal Medulla         |                                       | Leukemia Mononuclear    |                  |
|                           |                                       | Pheochromocytoma Benign |                  |
| * Bone Marrow             |                                       | Leukemia Mononuclear    |                  |
| * Heart                   |                                       | Leukemia Mononuclear    |                  |
|                           | Atrium                                | Thrombosis              | Moderate         |
|                           | [ Thrombosis TGLS = 5-4 ]             |                         |                  |
| * Kidney                  |                                       | Cyst                    | Moderate         |
|                           | Transit Epithe                        | Hyperplasia             | Minimal          |
|                           |                                       | Nephropathy             | Marked           |
|                           | [ Nephropathy TGLS = 9-7 ]            |                         |                  |
| * Liver                   |                                       | Leukemia Mononuclear    |                  |
| * Lung                    | Interstitialium                       | Fibrosis                | Mild             |
|                           |                                       | Infiltration Cellular   | Histiocyte, Mild |
|                           |                                       | Leukemia Mononuclear    |                  |
|                           |                                       | Leukemia Mononuclear    |                  |
| * Lymph Node, Mandibular  |                                       |                         |                  |
|                           | [ Leukemia Mononuclear TGLS = 2,4-2 ] |                         |                  |
| * Lymph Node, Mediastinal |                                       | Hemorrhage              | Mild             |
|                           |                                       | Leukemia Mononuclear    |                  |
|                           |                                       | Pigmentation            | Minimal          |
| * Mammary Gland           |                                       | Galactocele             | Mild             |
|                           |                                       | Pigmentation            | Mild             |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 128

TRT#: 2

SEX: Male

DAY ON TEST: 718

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-128

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                        |                                     |                      |          |
|------------------------|-------------------------------------|----------------------|----------|
| * Nose                 |                                     | Inflammation         | Mild     |
| * Pancreas             | Acinus                              | Atrophy              | Mild     |
| * Pituitary Gland      | Pars Distalis                       | Angiectasis          | Mild     |
|                        | Pars Distalis                       | Cyst                 | Mild     |
|                        | [ Angiectasis TGLS = 11-1 ]         |                      |          |
| * Preputial Gland      |                                     | Inflammation         | Moderate |
| * Prostate             |                                     | Inflammation         | Moderate |
| * Skin                 |                                     | Keratoacanthoma      |          |
|                        | [ Keratoacanthoma TGLS = 1-13 ]     |                      |          |
| * Spleen               |                                     | Leukemia Mononuclear |          |
|                        | [ Leukemia Mononuclear TGLS = 8-5 ] |                      |          |
| * Stomach, Forestomach |                                     | Ulcer                | Moderate |
| * Testes               | Bilateral, Interstit Cell           | Adenoma              |          |
|                        |                                     | Atrophy              | Moderate |
|                        | [ Adenoma TGLS = 6-9 ]              |                      |          |
|                        | [ Atrophy TGLS = 7-9 ]              |                      |          |
| * Thyroid Gland        | C Cell                              | Adenoma              |          |
| * Urinary Bladder      |                                     | Leukemia Mononuclear |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 129

TRT#: 2

SEX: Male

DAY ON TEST: 518

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-129

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Epididymis               | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Mammary Gland           |
| * Nose                      | * Pancreas               | * Parathyroid Gland        | * Preputial Gland         |
| * Prostate                  | * Salivary Glands        | * Seminal Vesicle          | * Skin                    |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

MISSING

\* Lymph Node, Mediastinal

OBSERVATIONS

|                          |               |                           |                         |
|--------------------------|---------------|---------------------------|-------------------------|
| * Kidney                 |               | Nephropathy               | Mild                    |
| * Liver                  |               | Vacuolization Cytoplasmic | Minimal                 |
| * Lung                   |               | Inflammation              | Chronic Active, Minimal |
| * Lymph Node, Mesenteric |               | Hemorrhage                | Mild                    |
| * Pituitary Gland        | Pars Distalis | Adenoma                   |                         |
| [ Adenoma TGLS = 1-1 ]   |               |                           |                         |
| * Spleen                 |               | Pigmentation              | Moderate                |
| * Testes                 | Bilateral     | Atrophy                   | Mild                    |
| [ Atrophy TGLS = 4-9 ]   |               |                           |                         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 130

TRT#: 2

SEX: Male

DAY ON TEST: 707

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-130

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Brain                   | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Liver                   | * Lung                      |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    | * Preputial Gland           |
| * Salivary Glands        | * Seminal Vesicle          | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          |                           |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |  |                           |          |
|---------------------------|--|---------------------------|----------|
| * Adrenal Cortex          |  | Vacuolization Cytoplasmic | Moderate |
| * Adrenal Medulla         | Bilateral                              | Pheochromocytoma Benign   |          |
|                           | [ Pheochromocytoma Benign TGLS = 4-3 ] |                           |          |
| * Bone Marrow             |  | Hyperplasia               | Marked   |
| * Epididymis              |  | Inflammation              | Mild     |
| * Heart                   |  | Cardiomyopathy            | Mild     |
| * Islets, Pancreatic      |  | Hyperplasia               | Mild     |
| * Kidney                  | Transit Epithe                         | Hyperplasia               | Minimal  |
|                           |  | Nephropathy               | Marked   |
|                           | [ Nephropathy TGLS = 6-7 ]             |                           |          |
| * Larynx                  | Respirat Epith                         | Hyperplasia               | Mild     |
|                           |  | Inflammation              | Mild     |
| * Lymph Node, Mediastinal |  | Pigmentation              | Mild     |
| * Mammary Gland           |  | Fibroma                   |          |
|                           |  | Galactocele               | Mild     |
|                           | [ Fibroma TGLS = 2-14 ]                |                           |          |
| Mesentery                 | Fat                                    | Necrosis                  | Moderate |
|                           | [ Necrosis TGLS = 10-15 ]              |                           |          |
| * Pancreas                | Acinus                                 | Atrophy                   | Minimal  |
| * Parathyroid Gland       |  | Hyperplasia               | Moderate |
|                           | [ Hyperplasia TGLS = 3-3 ]             |                           |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                                       |   |  |
|-----------------------|---------------------------------------|---|--|
| <b>ANIMAL ID:</b> 130 | <b>TRT#:</b> 2<br><b>DOSE:</b> 75 PPM | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 707<br><b>HISTO:</b> 90-5201-130 |
|-----------------------|---------------------------------------|---|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |                |                                  |          |
|-------------------------------------|----------------|----------------------------------|----------|
| * Pituitary Gland                   | Pars Distalis  | Hyperplasia                      | Moderate |
| * Prostate                          |                | Inflammation                     | Moderate |
| * Skin                              | Subcut Tiss    | Sarcoma                          |          |
| [ Sarcoma TGLS = 1-13 ]             |                |                                  |          |
| * Spleen                            |                | Depletion Cellular               | Moderate |
|                                     |                | Hematopoietic Cell Proliferation | Moderate |
| [ Depletion Cellular TGLS = 11-16 ] |                |                                  |          |
| * Stomach, Forestomach              |                | Ulcer                            | Moderate |
| * Stomach, Glandular                |                | Inflammation                     | Mild     |
| * Testes                            | Bilateral      | Atrophy                          | Moderate |
|                                     | Interstit Cell | Hyperplasia                      | Minimal  |
| [ Atrophy TGLS = 7,8-9 ]            |                |                                  |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 131

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-131

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                          |                           |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                  | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Larynx                 | * Parathyroid Gland      | * Preputial Gland         |
| * Salivary Glands           | * Seminal Vesicle        | * Stomach, Forestomach   | * Stomach, Glandular      |
| * Trachea                   |                          |                          |                           |

OBSERVATIONS

- |                                      |                |                         |                 |
|--------------------------------------|----------------|-------------------------|-----------------|
| * Adrenal Cortex                     |                | Leukemia Mononuclear    |                 |
| * Adrenal Medulla                    |                | Leukemia Mononuclear    |                 |
|                                      |                | Pheochromocytoma Benign |                 |
| * Bone Marrow                        |                | Leukemia Mononuclear    |                 |
| * Heart                              |                | Cardiomyopathy          | Mild            |
|                                      |                | Leukemia Mononuclear    |                 |
| * Intestine Small, Ileum             |                | Leukemia Mononuclear    |                 |
| * Intestine Small, Jejunum           |                | Leukemia Mononuclear    |                 |
| * Islets, Pancreatic                 |                | Hyperplasia             | Mild            |
| * Kidney                             | Transit Epithe | Hyperplasia             | Minimal         |
|                                      |                | Leukemia Mononuclear    |                 |
|                                      |                | Nephropathy             | Mild            |
|                                      |                | Pigmentation            | Mild            |
| * Liver                              |                | Degeneration            | Cystic, Minimal |
|                                      |                | Leukemia Mononuclear    |                 |
| [ Leukemia Mononuclear TGLS = 11-5 ] |                |                         |                 |
| * Lung                               |                | Leukemia Mononuclear    |                 |
| Lymph Node                           | Pancreatic     | Leukemia Mononuclear    |                 |
| [ Leukemia Mononuclear TGLS = 10-2 ] |                |                         |                 |
| * Lymph Node, Bronchial              |                | Leukemia Mononuclear    |                 |
| * Lymph Node, Mandibular             |                | Leukemia Mononuclear    |                 |
| * Lymph Node, Mediastinal            |                | Leukemia Mononuclear    |                 |
| [ Leukemia Mononuclear TGLS = 9-5 ]  |                |                         |                 |
| * Lymph Node, Mesenteric             |                | Leukemia Mononuclear    |                 |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 131

TRT#: 2

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-131

ORGAN AND ACCOUNTABLE SITE STATUS

[ Leukemia Mononuclear TGLS = 8-8 ]

\* Mammary Gland

Galactocele

Mild

Note: Leukemic cells have infiltrated the mammary gland.

\* Nose

Inflammation

Minimal

\* Pancreas

Acinus

Atrophy

Mild

\* Pituitary Gland

Pars Distalis

Adenoma

Pars Distalis

Leukemia Mononuclear

[ Adenoma TGLS = 5-1 ]

[ Leukemia Mononuclear TGLS = 5-1 ]

\* Prostate

Inflammation

Marked

[ Inflammation TGLS = 2,4-13 ]

\* Skin

Leukemia Mononuclear

\* Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-5 ]

\* Testes

Interstit Cell

Adenoma

Interstit Cell

Hyperplasia

Minimal

[ Adenoma TGLS = 3-9 ]

\* Thymus

Leukemia Mononuclear

\* Thyroid Gland

C Cell

Adenoma

\* Urinary Bladder

Transit Epithe

Hyperplasia

Moderate

Inflammation

Marked

[ Hyperplasia TGLS = 12-14 ]

[ Inflammation TGLS = 12-14 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 132

TRT#: 2

SEX: Male

DAY ON TEST: 600

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-132

ORGAN AND ACCOUNTABLE SITE STATUS

|                               |                |                |          |
|-------------------------------|----------------|----------------|----------|
| * Lymph Node, Mediastinal     |                | Pigmentation   | Mild     |
|                               |                | Hemorrhage     | Moderate |
|                               |                | Pigmentation   | Mild     |
| * Pancreas                    | Artery         | Degeneration   | Marked   |
|                               | Artery         | Inflammation   | Moderate |
|                               | Artery         | Mineralization | Moderate |
|                               |                |                |          |
| [ Degeneration TGLS = 3-2 ]   |                |                |          |
| [ Inflammation TGLS = 3-2 ]   |                |                |          |
| [ Mineralization TGLS = 3-2 ] |                |                |          |
| * Parathyroid Gland           |                | Hyperplasia    | Marked   |
| * Pituitary Gland             | Pars Distalis  | Adenoma        |          |
|                               |                |                |          |
| [ Adenoma TGLS = 5-1 ]        |                |                |          |
| * Stomach, Forestomach        |                | Mineralization | Moderate |
| * Stomach, Glandular          |                | Mineralization | Moderate |
| * Testes                      | Interstit Cell | Hyperplasia    | Minimal  |
|                               | Arteriole      | Inflammation   | Mild     |
|                               |                |                |          |
| [ Hyperplasia TGLS = 2-9 ]    |                |                |          |
| [ Inflammation TGLS = 2-9 ]   |                |                |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 133

TRT#: 2

SEX: Male

DAY ON TEST: 626

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-133

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Mandibular    |
| * Lymph Node, Mesenteric | * Parathyroid Gland        | * Preputial Gland         | * Salivary Glands           |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      | * Testes                    |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |

OBSERVATIONS

|                           |                |                                     |          |
|---------------------------|----------------|-------------------------------------|----------|
| * Adrenal Cortex          |                | Leukemia Mononuclear                |          |
| * Adrenal Medulla         |                | Leukemia Mononuclear                |          |
|                           |                | Pheochromocytoma Benign             |          |
| * Bone Marrow             |                | Leukemia Mononuclear                |          |
| * Brain                   |                | Hemorrhage                          | Minimal  |
| * Heart                   |                | Leukemia Mononuclear                |          |
| * Kidney                  | Renal Tubule   | Adenoma                             |          |
|                           |                | Leukemia Mononuclear                |          |
|                           |                | Nephropathy                         | Mild     |
| * Larynx                  | Respirat Epith | Hyperplasia                         | Mild     |
|                           |                | Leukemia Mononuclear                |          |
| * Liver                   |                | Leukemia Mononuclear                |          |
|                           |                | [ Leukemia Mononuclear TGLS = 2-5 ] |          |
| * Lung                    |                | Leukemia Mononuclear                |          |
| * Lymph Node, Bronchial   |                | Leukemia Mononuclear                |          |
| * Lymph Node, Mediastinal |                | Leukemia Mononuclear                |          |
| * Mammary Gland           |                | Galactocele                         | Moderate |
| * Nose                    | Respirat Epith | Hyperplasia                         | Minimal  |
|                           |                | Inflammation                        | Mild     |
|                           |                | Leukemia Mononuclear                |          |
| * Pancreas                | Acinus         | Atrophy                             | Mild     |
| * Pituitary Gland         | Pars Distalis  | Angiectasis                         | Moderate |
|                           | Pars Distalis  | Leukemia Mononuclear                |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 133

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 626

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-133

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Angiectasis TGLS = 3-1 ]

[ Leukemia Mononuclear TGLS = 3-1 ]

|                   |                      |      |
|-------------------|----------------------|------|
| * Prostate        | Inflammation         | Mild |
| * Seminal Vesicle | Leukemia Mononuclear |      |
| * Spleen          | Leukemia Mononuclear |      |

[ Leukemia Mononuclear TGLS = 1-5 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 134

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-134

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   |
| * Pancreas                 | * Pituitary Gland         | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                           |                                      |                           |                      |
|---------------------------|--------------------------------------|---------------------------|----------------------|
| * Adrenal Medulla         | Bilateral                            | Pheochromocytoma Benign   |                      |
| * Heart                   | Atrium                               | Cardiomyopathy            | Moderate             |
|                           |                                      | Thrombosis                | Marked               |
|                           | [ Cardiomyopathy TGLS = 7-4 ]        |                           |                      |
|                           | [ Thrombosis TGLS = 8-4 ]            |                           |                      |
| * Kidney                  |                                      | Nephropathy               | Mild                 |
| * Liver                   |                                      | Basophilic Focus          | Minimal              |
|                           |                                      | Degeneration              | Cystic, Mild         |
|                           |                                      | Eosinophilic Focus        | Mild                 |
|                           |                                      | Fibrosis                  | Minimal              |
|                           | [ Fibrosis TGLS = 4-5 ]              | Vacuolization Cytoplasmic | Minimal              |
| * Lung                    |                                      | Inflammation              | Chronic Active, Mild |
| * Lymph Node, Mediastinal |                                      | Infiltration Cellular     | Histiocyte, Minimal  |
|                           | [ Infiltration Cellular TGLS = 3-5 ] |                           |                      |
| * Skin                    | Pinna                                | Schwannoma Benign         |                      |
|                           | [ Schwannoma Benign TGLS = 1-13 ]    |                           |                      |
| * Testes                  | Bilateral, Interstit Cell            | Adenoma                   |                      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 134

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-134

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 2-9 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 135

TRT#: 2

SEX: Male

DAY ON TEST: 671

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-135

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                          |                           |                             |
|---------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla        | * Blood Vessel            | * Bone                      |
| * Bone Marrow             | * Brain                  | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum  | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum  | * Islets, Pancreatic     | * Larynx                  | * Lymph Node, Bronchial     |
| * Lymph Node, Mediastinal | * Mammary Gland          | * Nose                    | * Pancreas                  |
| * Parathyroid Gland       | * Preputial Gland        | * Prostate                | * Salivary Glands           |
| * Seminal Vesicle         | * Skin                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                  | * Trachea                | * Urinary Bladder         |                             |

AUTO PRECLUDES DIAG.

- \* Intestine Small, Jejunum

OBSERVATIONS

- |                           |                |                      |                 |
|---------------------------|----------------|----------------------|-----------------|
| * Heart                   | Atrium         | Thrombosis           | Moderate        |
| [ Thrombosis TGLS = 4-4 ] |                |                      |                 |
| * Kidney                  |                | Nephropathy          | Mild            |
|                           |                | Pigmentation         | Minimal         |
| * Liver                   |                | Degeneration         | Cystic, Minimal |
|                           |                | Leukemia Mononuclear |                 |
| * Lung                    |                | Leukemia Mononuclear |                 |
| * Lymph Node, Mandibular  |                | Atrophy              | Moderate        |
| * Lymph Node, Mesenteric  |                | Atrophy              | Moderate        |
| * Pituitary Gland         | Pars Distalis  | Adenoma              |                 |
| * Spleen                  |                | Leukemia Mononuclear |                 |
| * Testes                  | Interstit Cell | Adenoma              |                 |
|                           |                | Atrophy              | Mild            |
|                           | Interstit Cell | Hyperplasia          | Mild            |
| [ Adenoma TGLS = 2-9 ]    |                |                      |                 |
| [ Atrophy TGLS = 1-9 ]    |                |                      |                 |
| * Thyroid Gland           | C Cell         | Hyperplasia          | Minimal         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 136

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-136

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      | * Parathyroid Gland      |
| * Preputial Gland          | * Prostate                | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Trachea                  | * Urinary Bladder         |                             |                          |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|  |                |                           |                  |
|--|----------------|---------------------------|------------------|
| * Bone Marrow                          |                | Hyperplasia               | Mild             |
| * Heart                                |                | Cardiomyopathy            | Mild             |
| * Kidney                               | Transit Epithe | Hyperplasia               | Minimal          |
|  |                | Leukemia Mononuclear      |                  |
|  |                | Nephropathy               | Moderate         |
| [ Nephropathy TGLS = 6-7 ]             |                |                           |                  |
| * Liver                                |                | Basophilic Focus          | Minimal          |
|  |                | Clear Cell Focus          | Minimal          |
|  |                | Eosinophilic Focus        | Mild             |
|  |                | Leukemia Mononuclear      |                  |
|  |                | Mixed Cell Focus          | Mild             |
|  |                | Vacuolization Cytoplasmic | Minimal          |
| [ Leukemia Mononuclear TGLS = 5-5,14 ] |                |                           |                  |
| [ Mixed Cell Focus TGLS = 4-14 ]       |                |                           |                  |
| Lymph Node                             | Renal          | Infiltration Cellular     | Histiocyte, Mild |
| [ Infiltration Cellular TGLS = 7-13 ]  |                |                           |                  |
| * Lymph Node, Mediastinal              |                | Hemorrhage                | Mild             |
|  |                | Pigmentation              | Mild             |
| * Mammary Gland                        |                | Inflammation              | Mild             |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 136

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-136

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                        |                                     |                      |          |
|------------------------|-------------------------------------|----------------------|----------|
| * Pancreas             | Acinus                              | Pigmentation         | Mild     |
| * Pituitary Gland      | Pars Distalis                       | Atrophy              | Mild     |
|                        | Pars Distalis                       | Angiectasis          | Mild     |
|                        |                                     | Hyperplasia          | Moderate |
|                        | [ Angiectasis TGLS = 8-1.1 ]        |                      |          |
|                        | [ Hyperplasia TGLS = 8-1.1 ]        |                      |          |
| * Spleen               |                                     | Leukemia Mononuclear |          |
|                        | [ Leukemia Mononuclear TGLS = 3-5 ] |                      |          |
| * Testes               | Bilateral, Interstit Cell           | Adenoma              |          |
|                        | [ Adenoma TGLS = 1-9 ]              |                      |          |
| * Thyroid Gland        | C Cell                              | Hyperplasia          | Minimal  |
| PRIMARY CAUSE OF DEATH | -                                   |                      |          |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 137

TRT#: 2

SEX: Male

DAY ON TEST: 640

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-137

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Epididymis               | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  |
| * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    |
| * Pancreas                  | * Parathyroid Gland      | * Preputial Gland          | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | * Spleen                   | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

OBSERVATIONS

|  |                |                           |          |
|--|----------------|---------------------------|----------|
| * Islets, Pancreatic                   |                | Adenoma                   |          |
| * Kidney                               |                | Nephropathy               | Marked   |
| [ Nephropathy TGLS = 3-7 ]             |                |                           |          |
| * Liver                                |                | Hepatocellular Adenoma    |          |
| [ Hepatocellular Adenoma TGLS = 2-13 ] |                | Vacuolization Cytoplasmic | Marked   |
| * Lymph Node, Bronchial                |                | Hemorrhage                | Moderate |
|  |                | Pigmentation              | Mild     |
| * Lymph Node, Mediastinal              |                | Hemorrhage                | Minimal  |
| * Mammary Gland                        |                | Galactocele               | Mild     |
| * Pituitary Gland                      | Pars Distalis  | Adenoma                   |          |
| [ Adenoma TGLS = 7-1 ]                 |                |                           |          |
| * Prostate                             |                | Inflammation              | Mild     |
| * Stomach, Forestomach                 |                | Hyperplasia               | Moderate |
|  |                | Ulcer                     | Marked   |
| * Testes                               | Interstit Cell | Adenoma                   |          |
|  |                | Degeneration              | Minimal  |
|  | Interstit Cell | Hyperplasia               | Minimal  |
| [ Adenoma TGLS = 4-9 ]                 |                |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 138

TRT#: 2

SEX: Male

DAY ON TEST: 607

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-138

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                      |                        |                          |                           |
|----------------------|------------------------|--------------------------|---------------------------|
| * Blood Vessel       | * Bone                 | * Brain                  | * Epididymis              |
| * Esophagus          | Eye                    | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Islets, Pancreatic | * Larynx               | * Mammary Gland          | * Nose                    |
| * Skin               | * Stomach, Forestomach | * Thyroid Gland          | * Trachea                 |
| * Urinary Bladder    |                        |                          |                           |

MISSING

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

\* Intestine Small, Jejunum

OBSERVATIONS

|                                     |               |                           |          |
|-------------------------------------|---------------|---------------------------|----------|
| * Adrenal Cortex                    |               | Vacuolization Cytoplasmic | Mild     |
| * Adrenal Medulla                   |               | Leukemia Mononuclear      |          |
| * Bone Marrow                       |               | Leukemia Mononuclear      |          |
| * Heart                             |               | Leukemia Mononuclear      |          |
| * Intestine Large, Cecum            |               | Leukemia Mononuclear      |          |
| * Intestine Small, Duodenum         |               | Leukemia Mononuclear      |          |
| * Intestine Small, Ileum            |               | Leukemia Mononuclear      |          |
| * Kidney                            |               | Leukemia Mononuclear      |          |
| * Liver                             |               | Cyst                      | Moderate |
|                                     |               | Leukemia Mononuclear      |          |
| [ Cyst TGLS = 4-14 ]                |               |                           |          |
| [ Leukemia Mononuclear TGLS = 5-5 ] |               |                           |          |
| * Lung                              |               | Leukemia Mononuclear      |          |
| * Lymph Node, Bronchial             |               | Leukemia Mononuclear      |          |
| * Lymph Node, Mandibular            |               | Leukemia Mononuclear      |          |
| * Lymph Node, Mediastinal           |               | Leukemia Mononuclear      |          |
| * Lymph Node, Mesenteric            |               | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 9-8 ] |               |                           |          |
| * Pancreas                          |               | Leukemia Mononuclear      |          |
| * Pituitary Gland                   | Pars Distalis | Angiectasis               | Mild     |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 138

TRT#: 2

SEX: Male

DAY ON TEST: 607

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-138

ORGAN AND ACCOUNTABLE SITE STATUS

|                                     |                |                      |          |
|-------------------------------------|----------------|----------------------|----------|
|                                     | Pars Distalis  | Hyperplasia          | Moderate |
| [ Angiectasis TGLS = 8-1 ]          |                |                      |          |
| [ Hyperplasia TGLS = 8-1 ]          |                |                      |          |
| * Preputial Gland                   |                | Leukemia Mononuclear |          |
| * Prostate                          |                | Leukemia Mononuclear |          |
| * Salivary Glands                   |                | Leukemia Mononuclear |          |
| * Seminal Vesicle                   |                | Leukemia Mononuclear |          |
| * Spleen                            |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ] |                |                      |          |
| * Stomach, Glandular                |                | Leukemia Mononuclear |          |
| * Testes                            | Interstit Cell | Adenoma              |          |
|                                     | Interstit Cell | Hyperplasia          | Minimal  |
|                                     |                | Leukemia Mononuclear |          |
| [ Adenoma TGLS = 7-9 ]              |                |                      |          |
| * Thymus                            |                | Leukemia Mononuclear |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 139

TRT#: 2

DOSE: 75 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 714

HISTO: 90-5201-139

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                          |                             |
|--------------------------|----------------------------|--------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Brain                  | * Epididymis                |
| * Esophagus              | * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Mammary Gland          | * Parathyroid Gland         |
| * Pituitary Gland        | * Preputial Gland          | * Salivary Glands        | * Seminal Vesicle           |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular     | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          |                          |                             |

MISSING

\* Thymus

OBSERVATIONS

|                           |   |                            |          |
|---------------------------|---|----------------------------|----------|
| * Adrenal Cortex          |   | Leukemia Mononuclear       |          |
| * Adrenal Medulla         |   | Leukemia Mononuclear       |          |
|                           |   | Pheochromocytoma Benign    |          |
| * Bone Marrow             |   | Leukemia Mononuclear       |          |
| * Heart                   |   | Leukemia Mononuclear       |          |
|                           | Atrium                                    | Thrombosis                 | Moderate |
|                           | [ Thrombosis TGLS = 10-4 ]                |                            |          |
| * Intestine Large, Rectum |   | Leukemia Mononuclear       |          |
| * Islets, Pancreatic      |   | Adenoma                    |          |
| * Kidney                  | Renal Tubule                              | Adenoma                    |          |
|                           | Transit Epithe                            | Hyperplasia                | Minimal  |
|                           |   | Leukemia Mononuclear       |          |
|                           |   | Nephropathy                | Mild     |
|                           |   | Pigmentation               | Moderate |
|                           | [ Leukemia Mononuclear TGLS = 8-7 ]       |                            |          |
| * Larynx                  |   | Leukemia Mononuclear       |          |
| * Liver                   |   | Hepatodiaphragmatic Nodule |          |
|                           |   | Leukemia Mononuclear       |          |
|                           | [ Hepatodiaphragmatic Nodule TGLS = 5-5 ] |                            |          |
|                           | [ Leukemia Mononuclear TGLS = 6-5 ]       |                            |          |
| * Lung                    |   | Leukemia Mononuclear       |          |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 139

TRT#: 2

SEX: Male

DAY ON TEST: 714

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-139

ORGAN AND ACCOUNTABLE SITE STATUS

|                                      |                |                      |          |
|--------------------------------------|----------------|----------------------|----------|
| [ Leukemia Mononuclear TGLS = 11-6 ] |                |                      |          |
| Lymph Node                           | Renal          | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 7-13 ] |                |                      |          |
| * Lymph Node, Bronchial              |                | Leukemia Mononuclear |          |
| * Lymph Node, Mandibular             |                | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal            |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 9-5 ]  |                |                      |          |
| * Lymph Node, Mesenteric             |                | Leukemia Mononuclear |          |
| * Nose                               |                | Leukemia Mononuclear |          |
| * Pancreas                           | Acinus         | Atrophy              | Mild     |
| * Prostate                           |                | Inflammation         | Mild     |
|                                      |                | Leukemia Mononuclear |          |
| * Spleen                             |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 4-5 ]  |                |                      |          |
| * Testes                             | Interstit Cell | Adenoma              |          |
|                                      | Bilateral      | Atrophy              | Moderate |
|                                      | Interstit Cell | Hyperplasia          | Minimal  |
| [ Atrophy TGLS = 1-9 ]               |                |                      |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 140

TRT#: 2

SEX: Male

DAY ON TEST: 639

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-140

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Mammary Gland          | * Nose                     |
| * Parathyroid Gland       | * Preputial Gland           | * Seminal Vesicle        | * Skin                     |
| * Trachea                 | * Urinary Bladder           |                          |                            |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |   |                      |                 |
|---------------------------|---|----------------------|-----------------|
| * Adrenal Medulla         |   | Hyperplasia          | Minimal         |
| * Bone Marrow             |   | Leukemia Mononuclear |                 |
| * Heart                   |   | Leukemia Mononuclear |                 |
| * Kidney                  |   | Leukemia Mononuclear |                 |
|                           |   | Nephropathy          | Minimal         |
| * Liver                   |   | Degeneration         | Cystic, Minimal |
|                           |   | Leukemia Mononuclear |                 |
|                           | [ Leukemia Mononuclear TGLS = 4-5 ]     |                      |                 |
| * Lung                    |   | Leukemia Mononuclear |                 |
| * Lymph Node, Mandibular  |   | Leukemia Mononuclear |                 |
| * Lymph Node, Mediastinal |   | Leukemia Mononuclear |                 |
| * Lymph Node, Mesenteric  |   | Leukemia Mononuclear |                 |
| * Pancreas                | Acinus                                  | Atrophy              | Mild            |
| * Pituitary Gland         |   | Leukemia Mononuclear |                 |
|                           | [ Leukemia Mononuclear TGLS = 7-1 ]     |                      |                 |
| * Prostate                |   | Inflammation         | Mild            |
|                           |   | Leukemia Mononuclear |                 |
| * Salivary Glands         |   | Leukemia Mononuclear |                 |
| * Spleen                  |   | Leukemia Mononuclear |                 |
|                           | [ Leukemia Mononuclear TGLS = 1,2,3-5 ] |                      |                 |
| * Stomach, Forestomach    |   | Hyperplasia          | Mild            |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 140 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 639   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-140 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                |                      |        |
|------------------------|----------------|----------------------|--------|
| * Stomach, Glandular   |                | Ulcer                | Mild   |
| * Testes               | Interstit Cell | Ulcer                | Marked |
|                        |                | Adenoma              |        |
|                        |                | Atrophy              | Marked |
|                        |                |                      |        |
| [ Adenoma TGLS = 5-9 ] |                |                      |        |
| [ Atrophy TGLS = 6-9 ] |                |                      |        |
| * Thymus               |                | Leukemia Mononuclear |        |
| * Thyroid Gland        | C Cell         | Hyperplasia          | Mild   |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 141

TRT#: 2

SEX: Male

DAY ON TEST: 692

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-141

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                          |                           |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Medulla           | * Bone                   | * Bone Marrow            | * Brain                   |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Islets, Pancreatic     | * Larynx                 | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Pituitary Gland        | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                   | * Spleen                  |
| * Stomach, Forestomach      | * Thymus                 | * Thyroid Gland          | * Trachea                 |

MISSING

\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Small, Ileum                      \* Intestine Small, Jejunum

OBSERVATIONS

|                           |  |                           |                         |
|---------------------------|--|---------------------------|-------------------------|
| * Adrenal Cortex          |  | Degeneration              | Cystic, Mild            |
|                           |  | Vacuolization Cytoplasmic | Minimal                 |
| * Blood Vessel            | Aorta                                  | Mineralization            | Moderate                |
| * Epididymis              |  | Mesothelioma Malignant    |                         |
|                           | [ Mesothelioma Malignant TGLS = 10-9 ] |                           |                         |
| * Heart                   |  | Cardiomyopathy            | Moderate                |
|                           | [ Cardiomyopathy TGLS = 12-4 ]         |                           |                         |
| * Kidney                  | Transit Epithe                         | Hyperplasia               | Minimal                 |
|                           |  | Nephropathy               | Marked                  |
|                           | [ Nephropathy TGLS = 3-7 ]             |                           |                         |
| * Liver                   |  | Degeneration              | Cystic, Mild            |
|                           |  | Eosinophilic Focus        | Mild                    |
| * Lung                    |  | Congestion                | Mild                    |
|                           |  | Hemorrhage                | Minimal                 |
|                           |  | Inflammation              | Chronic Active, Minimal |
| * Lymph Node, Mediastinal |  | Pigmentation              | Minimal                 |
| * Nose                    | Respirat Epith                         | Hyperplasia               | Minimal                 |
|                           |  | Inflammation              | Mild                    |
| * Pancreas                | Acinus                                 | Atrophy                   | Minimal                 |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:33

**First Dose M/F:** NA / NA

**Lab:** IIT

**ANIMAL ID:** 141

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:** 692

**DOSE:** 75 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-141

**ORGAN AND ACCOUNTABLE SITE STATUS**

|  |                           |  |          |
|--|---------------------------|--|----------|
| * Parathyroid Gland<br>[ Hyperplasia TGLS = 2-3 ]            |                           | Hyperplasia                                  | Moderate |
| * Preputial Gland<br>[ Hyperplasia TGLS = 1-10 ]             |                           | Hyperplasia                                  | Moderate |
| * Stomach, Glandular   |                           | Mineralization                               | Minimal  |
| * Testes<br>[ Adenoma TGLS = 5-9 ]<br>[ Atrophy TGLS = 4-9 ] | Bilateral, Interstit Cell | Adenoma<br>Atrophy<br>Mesothelioma Malignant | Mild     |
| * Urinary Bladder<br>[ Hemorrhage TGLS = 7-13 ]              |                           | Hemorrhage                                   | Moderate |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 142

TRT#: 2

SEX: Male

DAY ON TEST: 582

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-142

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lymph Node, Bronchial   | * Lymph Node, Mandibular    |
| * Lymph Node, Mesenteric | * Mammary Gland            | * Parathyroid Gland       | * Preputial Gland           |
| * Prostate               | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |                             |

MISSING

- |          |          |
|----------|----------|
| * Larynx | * Thymus |
|----------|----------|

OBSERVATIONS

- |                           |                                     |                           |          |
|---------------------------|-------------------------------------|---------------------------|----------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear      |          |
|                           |                                     | Vacuolization Cytoplasmic | Mild     |
| * Adrenal Medulla         |                                     | Hyperplasia               | Mild     |
|                           |                                     | Leukemia Mononuclear      |          |
| * Bone Marrow             |                                     | Leukemia Mononuclear      |          |
| * Brain                   |                                     | Leukemia Mononuclear      |          |
|                           |                                     | Necrosis                  | Mild     |
| * Heart                   |                                     | Cardiomyopathy            | Mild     |
|                           |                                     | Leukemia Mononuclear      |          |
| * Islets, Pancreatic      |                                     | Hyperplasia               | Mild     |
| * Kidney                  |                                     | Nephropathy               | Moderate |
|                           |                                     | Pigmentation              | Moderate |
|                           | [ Pigmentation TGLS = 2-7 ]         |                           |          |
| * Liver                   |                                     | Leukemia Mononuclear      |          |
|                           | [ Leukemia Mononuclear TGLS = 3-5 ] |                           |          |
| * Lung                    |                                     | Leukemia Mononuclear      |          |
| * Lymph Node, Mediastinal |                                     | Leukemia Mononuclear      |          |
| * Nose                    | Respirat Epith                      | Hyperplasia               | Mild     |
| * Pancreas                | Acinus                              | Atrophy                   | Minimal  |
| * Pituitary Gland         |                                     | Leukemia Mononuclear      |          |
|                           | [ Leukemia Mononuclear TGLS = 5-1 ] |                           |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 142 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 582   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-142 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                |                      |      |
|---|----------------|----------------------|------|
| * Spleen<br>[ Leukemia Mononuclear TGLS = 1-5 ] |                | Leukemia Mononuclear |      |
| * Stomach, Forestomach                          |                | Hyperplasia          | Mild |
| * Stomach, Glandular                            |                | Necrosis             | Mild |
| * Testes  | Interstit Cell | Adenoma              |      |
|   | Interstit Cell | Hyperplasia          | Mild |
| [ Adenoma TGLS = 4-9 ]                          |                |                      |      |

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PRIMARY CAUSE OF DEATH

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-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 143

TRT#: 2

SEX: Male

DAY ON TEST: 713

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-143

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                          |                           |                          |
|--------------------------|--------------------------|---------------------------|--------------------------|
| * Adrenal Cortex         | * Adrenal Medulla        | * Blood Vessel            | * Bone                   |
| * Bone Marrow            | * Brain                  | * Epididymis              | * Esophagus              |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum |
| * Islets, Pancreatic     | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Pancreas               | * Parathyroid Gland      | * Preputial Gland         | * Salivary Glands        |
| * Seminal Vesicle        | * Stomach, Forestomach   | * Stomach, Glandular      | * Thymus                 |
| * Trachea                | * Urinary Bladder        |                           |                          |

MISSING

|                         |                 |
|-------------------------|-----------------|
| * Lymph Node, Bronchial | * Mammary Gland |
|-------------------------|-----------------|

AUTO PRECLUDES DIAG.

|                             |                            |
|-----------------------------|----------------------------|
| * Intestine Small, Duodenum | * Intestine Small, Jejunum |
|-----------------------------|----------------------------|

OBSERVATIONS

|   |   |                              |                  |
|---|---|------------------------------|------------------|
| * Epididymis  |   |                              |                  |
| Note: A necrotic (or autolytic) mass is attached to one epididymis, but the tissue cannot be described. |   |                              |                  |
| * Heart   |   | Cardiomyopathy               | Mild             |
| * Kidney  |   | Hemorrhage                   | Moderate         |
|   |   | Nephropathy                  | Moderate         |
|   | [ Hemorrhage TGLS = 4-7 ]                     |                              |                  |
| * Larynx  | Respirat Epith                                | Metaplasia                   | Squamous, Mild   |
| * Liver   |   | Eosinophilic Focus           | Minimal          |
| * Lung  |   | Alveolar/Bronchiolar Adenoma |                  |
|   | [ Alveolar/Bronchiolar Adenoma TGLS = 10-16 ] |                              |                  |
| * Nose  |   | Infiltration Cellular        | Lymphocyte, Mild |
| * Pituitary Gland   | Pars Distalis                                 | Hyperplasia                  | Mild             |
| * Prostate  |   | Infiltration Cellular        | Lymphocyte, Mild |
|   |   | Inflammation                 | Minimal          |
| * Skin  | Subcut Tiss                                   | Fibroma                      |                  |
|   | [ Fibroma TGLS = 1-13 ]                       |                              |                  |
| * Spleen  |   | Fibrosis                     | Mild             |
|   | [ Fibrosis TGLS = 3-5 ]                       |                              |                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                            |                           |
|-----------------------|---------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 143 | <b>TRT#:</b> 2      | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 713   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-143 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                      |                           |         |      |
|--------------------------------------|---------------------------|---------|------|
| * Testes<br>[ Adenoma TGLS = 5,6-9 ] | Bilateral, Interstit Cell | Adenoma |      |
| * Thyroid Gland                      | Follicle                  | Cyst    | Mild |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 144

TRT#: 2

SEX: Male

DAY ON TEST: 615

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-144

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Epididymis               | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Mammary Gland            | * Nose                    | * Pancreas                  |
| * Parathyroid Gland      | * Preputial Gland          | * Salivary Glands         | * Seminal Vesicle           |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      | * Testes                    |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |

OBSERVATIONS

|                           |                                     |                      |          |
|---------------------------|-------------------------------------|----------------------|----------|
| * Bone Marrow             |                                     | Hyperplasia          | Moderate |
| * Kidney                  |                                     | Leukemia Mononuclear |          |
|                           |                                     | Nephropathy          | Mild     |
| * Larynx                  | Respirat Epith                      | Hyperplasia          | Mild     |
| * Liver                   |                                     | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 4-5 ] |                      |          |
| * Lung                    |                                     | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal |                                     | Leukemia Mononuclear |          |
| * Lymph Node, Mesenteric  |                                     | Leukemia Mononuclear |          |
| Mesentery                 | Fat                                 | Necrosis             | Moderate |
|                           | [ Necrosis TGLS = 2-13 ]            |                      |          |
| * Pituitary Gland         | Pars Distalis                       | Angiectasis          | Marked   |
|                           | [ Angiectasis TGLS = 5-1 ]          |                      |          |
| * Prostate                |                                     | Inflammation         | Marked   |
| * Spleen                  |                                     | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 3-5 ] |                      |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 145

TRT#: 2

SEX: Male

DAY ON TEST: 723

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-145

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Bone                    | * Brain                     | * Esophagus              |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Mandibular    | * Nose                   |
| * Pancreas                 | * Parathyroid Gland       | * Prostate                  | * Salivary Glands        |
| * Seminal Vesicle          | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |                          |

OBSERVATIONS

- |                           |                                     |                        |                      |
|---------------------------|-------------------------------------|------------------------|----------------------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear   |                      |
| * Adrenal Medulla         | Bilateral                           | Hyperplasia            | Mild                 |
| * Bone Marrow             |                                     | Hyperplasia            | Marked               |
| * Epididymis              |                                     | Mesothelioma Malignant |                      |
| * Heart                   | Atrium                              | Cardiomyopathy         | Mild                 |
|                           |                                     | Thrombosis             | Moderate             |
|                           | [ Thrombosis TGLS = 13-4 ]          |                        |                      |
| * Intestine Large, Cecum  |                                     | Leukemia Mononuclear   |                      |
| * Kidney                  |                                     | Leukemia Mononuclear   |                      |
|                           |                                     | Nephropathy            | Mild                 |
| * Larynx                  |                                     | Infiltration Cellular  | Lymphocyte, Moderate |
| * Liver                   |                                     | Eosinophilic Focus     | Mild                 |
|                           | [ Leukemia Mononuclear TGLS = 8-5 ] | Leukemia Mononuclear   |                      |
| * Lung                    | Alveolar Epith                      | Hyperplasia            | Minimal              |
|                           |                                     | Leukemia Mononuclear   |                      |
| * Lymph Node, Bronchial   |                                     | Leukemia Mononuclear   |                      |
| * Lymph Node, Mediastinal |                                     | Leukemia Mononuclear   |                      |
|                           | [ Leukemia Mononuclear TGLS = 2-5 ] |                        |                      |
| * Lymph Node, Mesenteric  |                                     | Hemorrhage             | Moderate             |
|                           | [ Hemorrhage TGLS = 14-8 ]          |                        |                      |
| * Mammary Gland           |                                     | Pigmentation           | Mild                 |
| Peritoneum                |                                     | Mesothelioma Malignant |                      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                                       |   |  |
|-----------------------|---------------------------------------|---|--|
| <b>ANIMAL ID:</b> 145 | <b>TRT#:</b> 2<br><b>DOSE:</b> 75 PPM | <b>SEX:</b> Male<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 723<br><b>HISTO:</b> 90-5201-145 |
|-----------------------|---------------------------------------|---|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                      |                           |                        |          |
|--------------------------------------|---------------------------|------------------------|----------|
| * Pituitary Gland                    | Pars Distalis             | Angiectasis            | Mild     |
|                                      | Pars Distalis             | Hyperplasia            | Moderate |
| [ Angiectasis TGLS = 7-1 ]           |                           |                        |          |
| * Preputial Gland                    |                           | Inflammation           | Mild     |
| * Skin                               | Subcut Tiss               | Inflammation           | Marked   |
|                                      |                           | Leukemia Mononuclear   |          |
| [ Inflammation TGLS = 1-14 ]         |                           |                        |          |
| * Spleen                             |                           | Leukemia Mononuclear   |          |
| [ Leukemia Mononuclear TGLS = 3-13 ] |                           |                        |          |
| * Testes                             | Bilateral, Interstit Cell | Adenoma                |          |
|                                      |                           | Mesothelioma Malignant |          |
| [ Adenoma TGLS = 4,5,6-9 ]           |                           |                        |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 146

TRT#: 2

DOSE: 75 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 617

HISTO: 90-5201-146

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Mammary Gland             | * Prostate               | * Seminal Vesicle          | * Skin                    |
| * Stomach, Forestomach      | * Thymus                 | * Trachea                  | * Urinary Bladder         |

MISSING

|                          |                   |
|--------------------------|-------------------|
| * Lymph Node, Mandibular | * Salivary Glands |
|--------------------------|-------------------|

OBSERVATIONS

|                                      |              |  |                |
|--------------------------------------|--------------|--|----------------|
| * Adrenal Cortex                     |              | Leukemia Mononuclear<br>Vacuolization Cytoplasmic  | Moderate       |
| * Adrenal Medulla                    | Bilateral    | Hyperplasia<br>Leukemia Mononuclear                | Moderate       |
| [ Hyperplasia TGLS = 6-3 ]           |              |  |                |
| * Bone Marrow                        |              | Leukemia Mononuclear                               |                |
| * Heart                              |              | Leukemia Mononuclear                               |                |
| * Kidney                             | Renal Tubule | Adenoma<br>Cyst                                    | Mild           |
|                                      | Renal Tubule | Hyperplasia<br>Leukemia Mononuclear<br>Nephropathy | Mild<br>Marked |
| [ Nephropathy TGLS = 7-7 ]           |              |  |                |
| * Larynx                             |              | Leukemia Mononuclear                               |                |
| * Liver                              |              | Leukemia Mononuclear                               |                |
| * Lung                               |              | Leukemia Mononuclear                               |                |
| [ Leukemia Mononuclear TGLS = 12-6 ] |              |  |                |
| * Lymph Node, Bronchial              |              | Leukemia Mononuclear                               |                |
| * Lymph Node, Mediastinal            |              | Leukemia Mononuclear                               |                |
| [ Leukemia Mononuclear TGLS = 4-5 ]  |              |  |                |
| * Lymph Node, Mesenteric             |              | Leukemia Mononuclear                               |                |
| [ Leukemia Mononuclear TGLS = 11-8 ] |              |  |                |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 146

TRT#: 2

SEX: Male

DAY ON TEST: 617

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-146

ORGAN AND ACCOUNTABLE SITE STATUS

|                                     |                           |                      |          |
|-------------------------------------|---------------------------|----------------------|----------|
| * Nose                              |                           | Leukemia Mononuclear |          |
| * Pancreas                          | Acinus                    | Atrophy              | Minimal  |
| * Parathyroid Gland                 |                           | Hyperplasia          | Moderate |
| [ Hyperplasia TGLS = 3-3 ]          |                           |                      |          |
| * Pituitary Gland                   | Pars Distalis             | Adenoma              |          |
|                                     | Pars Distalis             | Angiectasis          | Moderate |
| [ Adenoma TGLS = 13-1 ]             |                           |                      |          |
| [ Angiectasis TGLS = 13-1 ]         |                           |                      |          |
| * Preputial Gland                   |                           | Inflammation         | Marked   |
| [ Inflammation TGLS = 2-10 ]        |                           |                      |          |
| * Spleen                            |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 5-5 ] |                           |                      |          |
| * Stomach, Glandular                |                           | Mineralization       | Mild     |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |          |
| [ Adenoma TGLS = 9,10-9 ]           |                           |                      |          |
| * Thyroid Gland                     | C Cell                    | Adenoma              |          |
| PRIMARY CAUSE OF DEATH              | -                         |                      |          |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 147

TRT#: 2

DOSE: 75 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-147

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal |
| * Nose                      | * Preputial Gland        | * Salivary Glands          | * Seminal Vesicle         |
| * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Trachea                   | * Urinary Bladder        |                            |                           |

OBSERVATIONS

|                          |                                     |                           |          |
|--------------------------|-------------------------------------|---------------------------|----------|
| * Adrenal Cortex         |                                     | Vacuolization Cytoplasmic | Minimal  |
| * Adrenal Medulla        |                                     | Pheochromocytoma Benign   |          |
| * Bone Marrow            |                                     | Hyperplasia               | Moderate |
| * Heart                  |                                     | Cardiomyopathy            | Mild     |
| * Kidney                 |                                     | Nephropathy               | Moderate |
|                          | [ Nephropathy TGLS = 9-7 ]          |                           |          |
| * Liver                  |                                     | Basophilic Focus          | Minimal  |
|                          |                                     | Eosinophilic Focus        | Mild     |
|                          | [ Leukemia Mononuclear TGLS = 7-5 ] | Leukemia Mononuclear      |          |
| * Lymph Node, Bronchial  |                                     | Hemorrhage                | Minimal  |
|                          |                                     | Pigmentation              | Minimal  |
| * Lymph Node, Mesenteric |                                     | Leukemia Mononuclear      |          |
| * Mammary Gland          |                                     | Fibroadenoma              |          |
|                          | [ Fibroadenoma TGLS = 1-13 ]        |                           |          |
| * Pancreas               | Acinus                              | Atrophy                   | Moderate |
| * Parathyroid Gland      |                                     | Hyperplasia               | Minimal  |
|                          | [ Hyperplasia TGLS = 8-3 ]          |                           |          |
| * Pituitary Gland        | Pars Distalis                       | Cyst                      | Minimal  |
|                          | Pars Distalis                       | Hyperplasia               | Minimal  |
| * Prostate               |                                     | Inflammation              | Mild     |
| * Spleen                 |                                     | Leukemia Mononuclear      |          |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 147 | <b>TRT#:</b> 2      | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 734   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-147 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                       |                           |         |          |
|---------------------------------------|---------------------------|---------|----------|
| [ Leukemia Mononuclear TGLS = 5,6-5 ] |                           |         |          |
| * Testes                              | Bilateral, Interstit Cell | Adenoma |          |
| [ Adenoma TGLS = 2,3-9 ]              |                           |         |          |
| * Thyroid Gland                       |                           | Cyst    | Moderate |
| [ Cyst TGLS = 8-3 ]                   |                           |         |          |

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PRIMARY CAUSE OF DEATH

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-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 148

TRT#: 2

SEX: Male

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-148

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric |
| * Mammary Gland            | * Parathyroid Gland       | * Preputial Gland           | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

OBSERVATIONS

|                   |                                       |                           |          |
|-------------------|---------------------------------------|---------------------------|----------|
| * Adrenal Medulla |                                       | Hyperplasia               | Minimal  |
| * Bone Marrow     |                                       | Hyperplasia               | Moderate |
| * Kidney          | Renal Tubule                          | Hyperplasia               | Mild     |
|                   | Transit Epithe                        | Hyperplasia               | Minimal  |
|                   |                                       | Leukemia Mononuclear      |          |
|                   |                                       | Nephropathy               | Moderate |
|                   | [ Nephropathy TGLS = 6-7 ]            |                           |          |
| * Liver           |                                       | Eosinophilic Focus        | Mild     |
|                   |                                       | Leukemia Mononuclear      |          |
|                   |                                       | Vacuolization Cytoplasmic | Mild     |
|                   | [ Leukemia Mononuclear TGLS = 3-5 ]   |                           |          |
| * Nose            | Glands                                | Cyst                      | Mild     |
| * Pancreas        | Acinus                                | Atrophy                   | Moderate |
| * Pituitary Gland | Pars Distalis                         | Hyperplasia               | Moderate |
| * Prostate        |                                       | Inflammation              | Moderate |
| * Spleen          |                                       | Leukemia Mononuclear      |          |
|                   | [ Leukemia Mononuclear TGLS = 2,4-5 ] |                           |          |
| * Testes          | Bilateral, Interstit Cell             | Adenoma                   |          |
|                   | [ Adenoma TGLS = 1-9 ]                |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 149

TRT#: 2

SEX: Male

DAY ON TEST: 549

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-149

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Liver                     |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Lymph Node, Mesenteric | * Nose                     | * Pancreas                | * Preputial Gland           |
| * Prostate               | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |                             |

MISSING

- \* Larynx

OBSERVATIONS

- \* Brain
  - Note: The brain is compressed by the pituitary tumor.
- \* Heart Cardiomyopathy Mild
- \* Kidney Nephropathy Mild
- \* Larynx
  - Note: The larynx is present, but the proper area for evaluation was not obtained.
- \* Mammary Gland Fibroma
  - [ Fibroma TGLS = 3-8 ]
- \* Parathyroid Gland Adenoma
- \* Pituitary Gland Adenoma
  - Pars Distalis
  - [ Adenoma TGLS = 1-1 ]
- \* Testes Hyperplasia Minimal
  - Interstit Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 150

TRT#: 2

SEX: Male

DAY ON TEST: 352

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-150

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                         |                          |                           |                             |
|-------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex        | * Adrenal Medulla        | * Blood Vessel            | * Bone                      |
| * Bone Marrow           | * Brain                  | * Epididymis              | * Esophagus                 |
| * Heart                 | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Islets, Pancreatic    | * Kidney                 | * Liver                   | * Lung                      |
| * Lymph Node, Bronchial | * Lymph Node, Mesenteric | * Mammary Gland           | * Nose                      |
| * Pancreas              | * Parathyroid Gland      | * Pituitary Gland         | * Preputial Gland           |
| * Salivary Glands       | * Seminal Vesicle        | * Skin                    | * Spleen                    |
| * Stomach, Forestomach  | * Stomach, Glandular     | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder       |                          |                           |                             |

MISSING

- |          |          |
|----------|----------|
| * Larynx | * Thymus |
|----------|----------|

AUTO PRECLUDES DIAG.

- |                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

- |   |           |              |                       |
|---|-----------|--------------|-----------------------|
| * Larynx  |           |              |                       |
| Note: The larynx is present, but the proper area for evaluation was not obtained. |           |              |                       |
| * Lymph Node, Mandibular  |           | Hyperplasia  | Plasma Cell, Moderate |
| * Lymph Node, Mediastinal   |           | Hemorrhage   | Marked                |
| * Prostate  |           | Inflammation | Mild                  |
| * Testes  | Bilateral | Atrophy      | Mild                  |
| [ Atrophy TGLS = 4-9 ]  |           |              |                       |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 201

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 671

HISTO: 90-5201-201

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                          |                           |                             |
|--------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Brain                  | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Larynx                 | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Mammary Gland          | * Preputial Gland        | * Prostate                | * Salivary Glands           |
| * Seminal Vesicle        | * Skin                   | * Spleen                  | * Thymus                    |
| * Thyroid Gland          | * Trachea                | * Urinary Bladder         |                             |

AUTO PRECLUDES DIAG.

\* Intestine Small, Jejunum

OBSERVATIONS

|                           |                            |                         |                      |
|---------------------------|----------------------------|-------------------------|----------------------|
| * Adrenal Medulla         |                            | Pheochromocytoma Benign |                      |
| * Blood Vessel            | Aorta                      | Mineralization          | Mild                 |
| * Bone                    |                            | Fibrous Osteodystrophy  | Moderate             |
| * Bone Marrow             |                            | Hyperplasia             | Moderate             |
| * Heart                   |                            | Cardiomyopathy          | Moderate             |
| * Islets, Pancreatic      |                            | Adenoma                 |                      |
| * Kidney                  | Transit Epithe             | Hyperplasia             | Moderate             |
|                           |                            | Nephropathy             | Marked               |
|                           | [ Nephropathy TGLS = 2-7 ] |                         |                      |
| * Liver                   |                            | Angiectasis             | Mild                 |
|                           |                            | Degeneration            | Cystic, Moderate     |
| * Lung                    |                            | Fibrosis                | Minimal              |
|                           |                            | Inflammation            | Chronic Active, Mild |
| * Lymph Node, Bronchial   |                            | Hemorrhage              | Mild                 |
| * Lymph Node, Mediastinal |                            | Hemorrhage              | Moderate             |
| * Nose                    |                            | Inflammation            | Minimal              |
| * Pancreas                | Acinus                     | Atrophy                 | Minimal              |
| * Parathyroid Gland       |                            | Hyperplasia             | Moderate             |
|                           | [ Hyperplasia TGLS = 8-3 ] |                         |                      |
| * Pituitary Gland         | Pars Distalis              | Hyperplasia             | Mild                 |
| * Stomach, Forestomach    |                            | Mineralization          | Moderate             |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 201 | <b>TRT#:</b> 3       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 671   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-201 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                           |                |          |
|------------------------|---------------------------|----------------|----------|
| * Stomach, Glandular   |                           | Mineralization | Moderate |
| * Testes               | Bilateral, Interstit Cell | Adenoma        |          |
|                        |                           | Atrophy        | Mild     |
| [ Adenoma TGLS = 4-9 ] |                           |                |          |
| [ Atrophy TGLS = 5-9 ] |                           |                |          |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 202

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-202

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           | * Nose                      |
| * Pancreas               | * Parathyroid Gland        | * Preputial Gland         | * Salivary Glands           |
| * Seminal Vesicle        | * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Urinary Bladder          |                           |                             |

OBSERVATIONS

|                           |                           |   |                |
|---------------------------|---------------------------|---|----------------|
| * Heart                   |                           | Cardiomyopathy  | Mild           |
| * Islets, Pancreatic      |                           | Hyperplasia   | Mild           |
| * Kidney                  |                           | Nephropathy   | Mild           |
| * Larynx                  | Respirat Epith            | Hyperplasia   | Mild           |
|                           | Respirat Epith            | Metaplasia  | Squamous, Mild |
| * Liver                   |                           | Angiectasis   | Minimal        |
|                           |                           | Clear Cell Focus  | Minimal        |
|                           |                           | Eosinophilic Focus  | Mild           |
| * Lymph Node, Mediastinal |                           | Hemorrhage  | Minimal        |
| * Pituitary Gland         | Pars Distalis             | Adenoma   |                |
| * Prostate                |                           | Inflammation  | Mild           |
| * Spleen                  |                           | Fibrosis  | Mild           |
|                           |                           | [ Fibrosis TGLS = 3-5 ]   |                |
| * Testes                  | Bilateral, Interstit Cell | Adenoma   |                |
|                           |                           | [ Adenoma TGLS = 1-9 ]  |                |
| * Thyroid Gland           | C Cell                    | Hyperplasia   | Mild           |
|                           |                           | Note: The leiomyosarcoma of the trachea has invaded the thyroid glands. |                |
| * Trachea                 |                           | Leiomyosarcoma  |                |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 203

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 556

**DOSE:** 250 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-203

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Mandibular    | * Lymph Node, Mesenteric |
| * Parathyroid Gland        | * Preputial Gland         | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

**MISSING**

|          |                         |          |
|----------|-------------------------|----------|
| * Larynx | * Lymph Node, Bronchial | * Thymus |
|----------|-------------------------|----------|

**OBSERVATIONS**

|  |                |                      |          |
|--|----------------|----------------------|----------|
| * Bone Marrow  |                | Hyperplasia          | Moderate |
| * Epididymis   |                | Granuloma Sperm      | Moderate |
| * Kidney   |                | Nephropathy          | Minimal  |
| * Larynx   |                |                      |          |
| Note: The larynx is present, but the precise area for evaluation was not obtained. |                |                      |          |
| * Liver  |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-5 ]  |                |                      |          |
| * Lung   |                | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal  |                | Pigmentation         | Mild     |
| * Mammary Gland  |                | Galactocele          | Mild     |
| * Nose   |                | Inflammation         | Moderate |
| * Pancreas   | Acinus         | Atrophy              | Minimal  |
| * Pituitary Gland  | Pars Distalis  | Adenoma              |          |
| [ Adenoma TGLS = 4-1 ]   |                |                      |          |
| * Prostate   |                | Inflammation         | Mild     |
| * Spleen   |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ]  |                |                      |          |
| * Testes   | Interstit Cell | Hyperplasia          | Minimal  |

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 204

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 496

HISTO: 90-5201-204

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                           |                            |
|---------------------------|-----------------------------|---------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                    | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum  | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum  | * Intestine Small, Jejunum |
| * Lymph Node, Bronchial   | * Lymph Node, Mandibular    | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Nose                      | * Pancreas                | * Parathyroid Gland        |
| * Pituitary Gland         | * Preputial Gland           | * Salivary Glands         | * Seminal Vesicle          |
| * Skin                    | * Stomach, Glandular        | * Thyroid Gland           | * Trachea                  |
| * Urinary Bladder         |                             |                           |                            |

MISSING

|          |          |
|----------|----------|
| * Larynx | * Thymus |
|----------|----------|

OBSERVATIONS

|                        |                                     |                           |          |
|------------------------|-------------------------------------|---------------------------|----------|
| * Adrenal Cortex       |                                     | Necrosis                  | Mild     |
|                        |                                     | Vacuolization Cytoplasmic | Moderate |
| * Bone Marrow          |                                     | Hyperplasia               | Moderate |
| * Heart                | Atrium                              | Thrombosis                | Moderate |
| * Islets, Pancreatic   |                                     | Hyperplasia               | Mild     |
| * Kidney               |                                     | Leukemia Mononuclear      |          |
|                        |                                     | Nephropathy               | Mild     |
| * Liver                |                                     | Leukemia Mononuclear      |          |
|                        | [ Leukemia Mononuclear TGLS = 2-5 ] |                           |          |
| * Lung                 |                                     | Leukemia Mononuclear      |          |
| * Prostate             |                                     | Inflammation              | Marked   |
| * Spleen               |                                     | Leukemia Mononuclear      |          |
|                        | [ Leukemia Mononuclear TGLS = 1-5 ] |                           |          |
| * Stomach, Forestomach |                                     | Ulcer                     | Moderate |
| * Testes               | Bilateral                           | Necrosis                  | Marked   |
|                        | [ Necrosis TGLS = 3-9 ]             |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 205

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-205

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   |
| * Pancreas                 | * Preputial Gland         | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                           |                           |                            |          |
|---------------------------|---------------------------|----------------------------|----------|
| * Bone Marrow             |                           | Hyperplasia                | Mild     |
| * Heart                   |                           | Cardiomyopathy             | Mild     |
| * Kidney                  | Transit Epithe            | Hyperplasia                | Minimal  |
|                           |                           | Nephropathy                | Mild     |
| * Larynx                  |                           | Foreign Body               | Mild     |
|                           |                           | Inflammation               | Moderate |
| * Liver                   |                           | Clear Cell Focus           | Mild     |
|                           |                           | Eosinophilic Focus         | Mild     |
| * Lymph Node, Mediastinal |                           | Hemorrhage                 | Minimal  |
|                           |                           | Pigmentation               | Minimal  |
| * Pituitary Gland         | Pars Distalis             | Cyst                       | Minimal  |
|                           | Pars Distalis             | Hyperplasia                | Mild     |
|                           |                           | [ Cyst TGLS = 3-1 ]        |          |
|                           |                           | [ Hyperplasia TGLS = 3-1 ] |          |
| * Prostate                |                           | Inflammation               | Moderate |
| * Testes                  | Bilateral, Interstit Cell | Adenoma                    |          |
|                           |                           | [ Adenoma TGLS = 1-9 ]     |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 206

TRT#: 3

SEX: Male

DAY ON TEST: 696

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-206

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Bone Marrow              | * Brain                   |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                     | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

OBSERVATIONS

|                           |                                     |   |                  |
|---------------------------|-------------------------------------|---|------------------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear<br>Vacuolization Cytoplasmic   | Mild             |
| * Adrenal Medulla         |                                     | Leukemia Mononuclear                                |                  |
| * Epididymis              |                                     | Leukemia Mononuclear                                |                  |
| * Heart                   | Atrium                              | Cardiomyopathy<br>Thrombosis                        | Mild<br>Moderate |
|                           | [ Thrombosis TGLS = 5-4 ]           |   |                  |
| * Kidney                  |                                     | Leukemia Mononuclear<br>Nephropathy<br>Pigmentation | Mild<br>Moderate |
|                           | [ Leukemia Mononuclear TGLS = 3-5 ] |   |                  |
| * Liver                   |                                     | Leukemia Mononuclear                                |                  |
| * Lung                    |                                     | Leukemia Mononuclear                                |                  |
| * Lymph Node, Bronchial   |                                     | Leukemia Mononuclear                                |                  |
| * Lymph Node, Mediastinal |                                     | Hemorrhage<br>Pigmentation                          | Minimal<br>Mild  |
| * Mammary Gland           |                                     | Galactocele   | Mild             |
| * Pancreas                | Acinus                              | Atrophy   | Minimal          |
| * Parathyroid Gland       |                                     | Hyperplasia   | Minimal          |
| * Pituitary Gland         | Pars Distalis                       | Hyperplasia   | Mild             |
| * Preputial Gland         |                                     | Inflammation  | Minimal          |
| * Prostate                |                                     | Inflammation  | Moderate         |
| * Spleen                  |                                     | Leukemia Mononuclear                                |                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 206 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 696   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-206 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |                           |                      |          |
|-------------------------------------|---------------------------|----------------------|----------|
| [ Leukemia Mononuclear TGLS = 2-5 ] |                           |                      |          |
| * Stomach, Forestomach              |                           | Hyperplasia          | Moderate |
|                                     |                           | Ulcer                | Moderate |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |          |
|                                     |                           | Atrophy              | Moderate |
|                                     |                           | Leukemia Mononuclear |          |
| [ Adenoma TGLS = 1-9 ]              |                           |                      |          |
| [ Atrophy TGLS = 4-9 ]              |                           |                      |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 207

TRT#: 3

SEX: Male

DAY ON TEST: 704

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-207

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                             |                          |                            |
|--------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel           | * Brain                     | * Esophagus              | * Intestine Large, Cecum   |
| * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Larynx                 | * Preputial Gland           | * Salivary Glands        | * Skin                     |
| * Stomach, Forestomach   | * Stomach, Glandular        | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder        |                             |                          |                            |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                           |                                     |                         |          |
|---------------------------|-------------------------------------|-------------------------|----------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear    |          |
| * Adrenal Medulla         |                                     | Leukemia Mononuclear    |          |
|                           | Bilateral                           | Pheochromocytoma Benign |          |
| * Bone                    |                                     | Hyperostosis            | Marked   |
| * Bone Marrow             |                                     | Leukemia Mononuclear    |          |
| * Epididymis              |                                     | Leukemia Mononuclear    |          |
| * Heart                   |                                     | Leukemia Mononuclear    |          |
|                           | Atrium                              | Thrombosis              | Marked   |
|                           | [ Thrombosis TGLS = 8-4 ]           |                         |          |
| * Intestine Large, Rectum |                                     | Leukemia Mononuclear    |          |
|                           |                                     | Thrombosis              | Mild     |
| * Islets, Pancreatic      |                                     | Adenoma                 |          |
|                           | [ Adenoma TGLS = 9-2 ]              |                         |          |
| * Kidney                  |                                     | Leukemia Mononuclear    |          |
|                           |                                     | Nephropathy             | Mild     |
| * Liver                   |                                     | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 4-5 ] |                         |          |
| * Lung                    |                                     | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 2-6 ] |                         |          |
| Lymph Node                | Pancreatic                          | Fibrosis                | Marked   |
|                           | Pancreatic                          | Leukemia Mononuclear    |          |
|                           | Pancreatic                          | Pigmentation            | Moderate |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 207 | <b>TRT#:</b> 3       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 704   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-207 |

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                                      |                           |                      |          |
|--------------------------------------|---------------------------|----------------------|----------|
| [ Fibrosis TGLS = 3-13 ]             |                           |                      |          |
| [ Leukemia Mononuclear TGLS = 3-13 ] |                           |                      |          |
| [ Pigmentation TGLS = 3-13 ]         |                           |                      |          |
| * Lymph Node, Bronchial              |                           | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal            |                           | Leukemia Mononuclear |          |
| * Lymph Node, Mesenteric             |                           | Leukemia Mononuclear |          |
| * Mammary Gland                      |                           | Pigmentation         | Moderate |
| * Nose                               | Respirat Epith            | Hyperplasia          | Minimal  |
|                                      |                           | Inflammation         | Mild     |
|                                      |                           | Leukemia Mononuclear |          |
| * Pancreas                           |                           | Leukemia Mononuclear |          |
| * Parathyroid Gland                  |                           | Hyperplasia          | Minimal  |
| [ Hyperplasia TGLS = 1-3 ]           |                           |                      |          |
| * Pituitary Gland                    | Pars Distalis             | Hyperplasia          | Mild     |
|                                      | Pars Distalis             | Leukemia Mononuclear |          |
| * Prostate                           |                           | Leukemia Mononuclear |          |
| * Seminal Vesicle                    |                           | Leukemia Mononuclear |          |
| * Spleen                             |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 7-5 ]  |                           |                      |          |
| * Testes                             | Bilateral, Interstit Cell | Adenoma              |          |
|                                      | Bilateral                 | Atrophy              | Moderate |
| [ Adenoma TGLS = 6-9 ]               |                           |                      |          |
| [ Atrophy TGLS = 5-9 ]               |                           |                      |          |
| * Thymus                             |                           | Leukemia Mononuclear |          |

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 208

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-208

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Blood Vessel           | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mediastinal   | * Nose                   | * Preputial Gland          | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Trachea                   | * Urinary Bladder        |                            |                           |

OBSERVATIONS

|  |                |  |              |
|--|----------------|--|--------------|
| * Adrenal Medulla                      |                | Hyperplasia<br>Pheochromocytoma Benign | Mild         |
| [ Pheochromocytoma Benign TGLS = 6-3 ] |                |  |              |
| * Bone                                 |                | Fibrous Osteodystrophy                 | Minimal      |
| * Bone Marrow                          |                | Hemorrhage                             | Mild         |
| * Heart                                |                | Cardiomyopathy                         | Moderate     |
| * Kidney                               | Renal Tubule   | Carcinoma                              |              |
|  | Renal Tubule   | Hyperplasia                            | Minimal      |
|  | Transit Epithe | Hyperplasia                            | Mild         |
|  |                | Nephropathy                            | Marked       |
| [ Carcinoma TGLS = 8-7 ]               |                |  |              |
| [ Nephropathy TGLS = 7-7 ]             |                |  |              |
| * Liver                                |                | Degeneration<br>Leukemia Mononuclear   | Cystic, Mild |
| [ Degeneration TGLS = 12-5 ]           |                |  |              |
| * Lymph Node, Mesenteric               |                | Ectasia                                | Mild         |
| * Mammary Gland                        |                | Fibroadenoma<br>Hyperplasia            | Moderate     |
| [ Fibroadenoma TGLS = 1-13 ]           |                |  |              |
| * Pancreas                             | Acinus         | Atrophy                                | Mild         |
| * Parathyroid Gland                    |                | Hyperplasia                            | Mild         |
| * Pituitary Gland                      | Pars Distalis  | Adenoma                                |              |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 208

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-208

ORGAN AND ACCOUNTABLE SITE STATUS

|  |                           |                                    |         |
|--|---------------------------|------------------------------------|---------|
| [ Adenoma TGLS = 11-1 ]                  |                           |                                    |         |
| * Skin                                   | Subcut Tiss               | Fibroma<br>Squamous Cell Papilloma |         |
| [ Fibroma TGLS = 2-14 ]                  |                           |                                    |         |
| [ Squamous Cell Papilloma TGLS = 10-15 ] |                           |                                    |         |
| * Spleen                                 |                           | Fibrosis<br>Leukemia Mononuclear   | Minimal |
| [ Fibrosis TGLS = 5-5 ]                  |                           |                                    |         |
| * Testes                                 | Bilateral, Interstit Cell | Adenoma<br>Atrophy                 | Mild    |
| [ Adenoma TGLS = 3,13-9 ]                |                           |                                    |         |
| [ Atrophy TGLS = 4-9 ]                   |                           |                                    |         |
| * Thymus                                 |                           | Thymoma Benign                     |         |
| * Thyroid Gland                          | Follicular Cel<br>C Cell  | Carcinoma<br>Hyperplasia           | Minimal |
| [ Carcinoma TGLS = 9-3 ]                 |                           |                                    |         |
| PRIMARY CAUSE OF DEATH                   | -                         |                                    |         |

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 209

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 509

HISTO: 90-5201-209

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                      |          |                          |                             |
|----------------------|----------|--------------------------|-----------------------------|
| * Blood Vessel       | * Bone   | * Esophagus              | * Intestine Small, Duodenum |
| * Islets, Pancreatic | * Larynx | * Lymph Node, Mesenteric | * Mammary Gland             |
| * Seminal Vesicle    | * Skin   | * Trachea                |                             |

AUTO PRECLUDES DIAG.

|                            |                          |                           |                          |
|----------------------------|--------------------------|---------------------------|--------------------------|
| * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum |                          |                           |                          |

OBSERVATIONS

|                                     |                      |          |
|-------------------------------------|----------------------|----------|
| * Adrenal Cortex                    | Leukemia Mononuclear |          |
| * Adrenal Medulla                   | Leukemia Mononuclear |          |
| * Bone Marrow                       | Leukemia Mononuclear |          |
| * Brain                             | Leukemia Mononuclear |          |
| * Epididymis                        | Leukemia Mononuclear |          |
| * Heart                             | Leukemia Mononuclear |          |
| * Kidney                            | Leukemia Mononuclear |          |
|                                     | Pigmentation         | Moderate |
| * Liver                             | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ] |                      |          |
| * Lung                              | Leukemia Mononuclear |          |
| * Lymph Node, Bronchial             | Leukemia Mononuclear |          |
| * Lymph Node, Mandibular            | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal           | Leukemia Mononuclear |          |
| * Nose                              | Leukemia Mononuclear |          |
| * Pancreas                          | Leukemia Mononuclear |          |
| * Parathyroid Gland                 | Hyperplasia          | Minimal  |
| [ Hyperplasia TGLS = 1-3 ]          |                      |          |
| * Pituitary Gland                   | Leukemia Mononuclear |          |
| * Preputial Gland                   | Leukemia Mononuclear |          |
| * Prostate                          | Inflammation         | Minimal  |
|                                     | Leukemia Mononuclear |          |
| * Salivary Glands                   | Leukemia Mononuclear |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 209 | <b>TRT#:</b> 3       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 509   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-209 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                |                      |      |
|---|----------------|----------------------|------|
| * Spleen<br>[ Leukemia Mononuclear TGLS = 2-5 ] |                | Leukemia Mononuclear |      |
| * Stomach, Forestomach                          |                | Leukemia Mononuclear |      |
| * Stomach, Glandular                            |                | Leukemia Mononuclear |      |
| * Testes  | Interstit Cell | Adenoma              |      |
|   | Interstit Cell | Hyperplasia          | Mild |
|   |                | Leukemia Mononuclear |      |
| [ Adenoma TGLS = 5-9 ]                          |                |                      |      |
| * Thymus  |                | Leukemia Mononuclear |      |
| * Thyroid Gland                                 |                | Leukemia Mononuclear |      |
| * Urinary Bladder                               |                | Leukemia Mononuclear |      |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 210

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-210

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                          |                           |                             |
|----------------------------|--------------------------|---------------------------|-----------------------------|
| * Blood Vessel             | * Bone                   | * Brain                   | * Epididymis                |
| * Esophagus                | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Jejunum | * Larynx                 | * Lymph Node, Bronchial   | * Mammary Gland             |
| * Parathyroid Gland        | * Preputial Gland        | * Prostate                | * Salivary Glands           |
| * Seminal Vesicle          | * Skin                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                   | * Thyroid Gland          | * Trachea                 | * Urinary Bladder           |

**OBSERVATIONS**

|                          |                |                      |                 |
|--------------------------|----------------|----------------------|-----------------|
| * Adrenal Cortex         |                | Degeneration         | Cystic, Mild    |
| * Adrenal Medulla        |                | Hyperplasia          | Mild            |
| * Bone Marrow            |                | Leukemia Mononuclear |                 |
| * Heart                  |                | Cardiomyopathy       | Minimal         |
|                          |                | Leukemia Mononuclear |                 |
| * Intestine Large, Cecum |                | Leukemia Mononuclear |                 |
| * Intestine Small, Ileum |                | Leukemia Mononuclear |                 |
| * Islets, Pancreatic     |                | Hyperplasia          | Mild            |
| * Kidney                 | Transit Epithe | Hyperplasia          | Minimal         |
|                          |                | Leukemia Mononuclear |                 |
|                          |                | Nephropathy          | Mild            |
| * Liver                  |                | Degeneration         | Cystic, Minimal |
|                          |                | Eosinophilic Focus   | Mild            |
|                          |                | Leukemia Mononuclear |                 |
|                          |                |                      |                 |
|                          |                | Leukemia Mononuclear |                 |
|                          |                | Leukemia Mononuclear |                 |
|                          |                | Leukemia Mononuclear |                 |
|                          |                | Leukemia Mononuclear |                 |
|                          |                | Hyperplasia          | Minimal         |
|                          | Respirat Epith | Atrophy              | Mild            |
|                          | Acinus         | Cyst                 | Minimal         |
|                          | Pars Distalis  | Hyperplasia          | Mild            |
|                          | Pars Distalis  |                      |                 |

[ Leukemia Mononuclear TGLS = 5-5 ]

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:33

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 210

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-210

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen

[ Leukemia Mononuclear TGLS = 3,4-5 ]

Leukemia Mononuclear

\* Testes

[ Adenoma TGLS = 2-9 ]

Bilateral, Interstit Cell

Adenoma

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 211

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-211

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Epididymis               | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      |
| * Pancreas               | * Parathyroid Gland        | * Preputial Gland         | * Prostate                  |
| * Salivary Glands        | * Seminal Vesicle          | * Spleen                  | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |

OBSERVATIONS

|   |                           |                         |              |
|---|---------------------------|-------------------------|--------------|
| * Bone Marrow                           |                           | Hyperplasia             | Mild         |
| * Islets, Pancreatic                    |                           | Adenoma                 |              |
| [ Adenoma TGLS = 8-15 ]                 |                           |                         |              |
| * Kidney                                |                           | Nephropathy             | Moderate     |
| [ Nephropathy TGLS = 5-7 ]              |                           |                         |              |
| * Liver                                 |                           | Degeneration            | Cystic, Mild |
| Lymph Node                              | Renal                     | Ectasia                 | Moderate     |
| [ Ectasia TGLS = 6-16 ]                 |                           | Hemorrhage              | Mild         |
| [ Hemorrhage TGLS = 6-16 ]              |                           |                         |              |
| * Lymph Node, Mediastinal               |                           | Pigmentation            | Mild         |
| * Mammary Gland                         |                           | Galactocele             | Moderate     |
| Oral Mucosa                             | Pharyngeal                | Squamous Cell Papilloma |              |
| [ Squamous Cell Papilloma TGLS = 7-13 ] |                           |                         |              |
| * Pituitary Gland                       | Pars Distalis             | Hyperplasia             | Mild         |
| * Skin                                  |                           | Keratoacanthoma         |              |
| [ Keratoacanthoma TGLS = 1-17 ]         |                           |                         |              |
| * Stomach, Forestomach                  |                           | Inflammation            | Mild         |
| * Testes                                | Bilateral, Interstit Cell | Adenoma                 |              |
| [ Adenoma TGLS = 4-9 ]                  |                           |                         |              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 212

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-212

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  |
| * Lung                      | * Mammary Gland          | * Nose                     | * Parathyroid Gland       |
| * Pituitary Gland           | * Preputial Gland        | * Prostate                 | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

OBSERVATIONS

|                                     |                           |                      |              |
|-------------------------------------|---------------------------|----------------------|--------------|
| * Adrenal Cortex                    |                           | Leukemia Mononuclear |              |
| * Adrenal Medulla                   |                           | Leukemia Mononuclear |              |
| * Bone Marrow                       |                           | Leukemia Mononuclear |              |
| * Heart                             |                           | Cardiomyopathy       | Minimal      |
| * Islets, Pancreatic                |                           | Adenoma              |              |
| * Kidney                            | Transit Epithe            | Hyperplasia          | Minimal      |
|                                     |                           | Leukemia Mononuclear |              |
|                                     |                           | Nephropathy          | Mild         |
| * Liver                             |                           | Degeneration         | Cystic, Mild |
|                                     |                           | Leukemia Mononuclear |              |
| * Lymph Node, Bronchial             |                           | Leukemia Mononuclear |              |
| * Lymph Node, Mandibular            |                           | Leukemia Mononuclear |              |
| * Lymph Node, Mediastinal           |                           | Leukemia Mononuclear |              |
| * Lymph Node, Mesenteric            |                           | Leukemia Mononuclear |              |
| * Pancreas                          | Acinus                    | Atrophy              | Mild         |
| * Spleen                            |                           | Fibrosis             | Mild         |
|                                     |                           | Leukemia Mononuclear |              |
| [ Fibrosis TGLS = 4-5 ]             |                           |                      |              |
| [ Leukemia Mononuclear TGLS = 3-5 ] |                           |                      |              |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |              |
| [ Adenoma TGLS = 2-9 ]              |                           |                      |              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 213

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-213

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Bone Marrow            | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Nose                      | * Parathyroid Gland      | * Preputial Gland          |
| * Salivary Glands         | * Seminal Vesicle           | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Thymus                  | * Thyroid Gland             | * Trachea                |                            |

OBSERVATIONS

|                           |   |                           |          |
|---------------------------|---|---------------------------|----------|
| * Adrenal Cortex          |   | Vacuolization Cytoplasmic | Minimal  |
| * Adrenal Medulla         |   | Hyperplasia               | Minimal  |
| * Heart                   |   | Cardiomyopathy            | Mild     |
| * Kidney                  | Renal Tubule                              | Hyperplasia               | Minimal  |
|                           |   | Leukemia Mononuclear      |          |
|                           |   | Nephropathy               | Mild     |
| * Liver                   |   | Leukemia Mononuclear      |          |
|                           | [ Leukemia Mononuclear TGLS = 5-5 ]       |                           |          |
| * Lung                    |   | Leukemia Mononuclear      |          |
| * Lymph Node, Bronchial   |   | Hemorrhage                | Mild     |
| * Lymph Node, Mediastinal |   | Pigmentation              | Minimal  |
| * Pancreas                | Acinus                                    | Atrophy                   | Moderate |
| * Pituitary Gland         | Pars Distalis                             | Adenoma                   | Multiple |
|                           | [ Adenoma TGLS = 6-1 ]                    |                           |          |
| * Prostate                |   | Inflammation              | Moderate |
| * Skin                    | Subcut Tiss                               | Cyst Epithelial Inclusion |          |
|                           | Epidermis                                 | Fibroma                   |          |
|                           | [ Cyst Epithelial Inclusion TGLS = 3-14 ] | Hyperplasia               | Mild     |
|                           | [ Fibroma TGLS = 2-13 ]                   |                           |          |
|                           | [ Hyperplasia TGLS = 3-14 ]               |                           |          |
| * Spleen                  |   | Leukemia Mononuclear      |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 213 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 734   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-213 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                    |                           |             |         |
|------------------------------------|---------------------------|-------------|---------|
| * Testes<br>[ Adenoma TGLS = 4-9 ] | Bilateral, Interstit Cell | Adenoma     |         |
| * Urinary Bladder                  | Transit Epithe            | Hyperplasia | Minimal |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 214

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-214

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Epididymis               |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Nose                   | * Pancreas                 |
| * Salivary Glands         | * Seminal Vesicle           | * Skin                   | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Trachea                | * Urinary Bladder          |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                     |                                   |                           |          |
|---------------------|-----------------------------------|---------------------------|----------|
| * Adrenal Cortex    |                                   | Vacuolization Cytoplasmic | Moderate |
| * Adrenal Medulla   |                                   | Hyperplasia               | Mild     |
| * Bone Marrow       |                                   | Hyperplasia               | Moderate |
| * Kidney            | Renal Tubule                      | Hyperplasia               | Minimal  |
|                     | Transit Epithe                    | Hyperplasia               | Minimal  |
|                     |                                   | Nephropathy               | Moderate |
|                     | [ Nephropathy TGLS = 8-7 ]        |                           |          |
| * Liver             |                                   | Basophilic Focus          | Minimal  |
| * Mammary Gland     |                                   | Hyperplasia               | Mild     |
| * Parathyroid Gland |                                   | Hyperplasia               | Mild     |
|                     | [ Hyperplasia TGLS = 3-3 ]        |                           |          |
| * Pituitary Gland   | Pars Distalis                     | Adenoma                   |          |
|                     | Pars Distalis                     | Cyst                      | Minimal  |
|                     | Pars Distalis                     | Hyperplasia               | Mild     |
| * Preputial Gland   |                                   | Adenoma                   |          |
|                     | [ Adenoma TGLS = 1-10 ]           |                           |          |
| * Prostate          |                                   | Inflammation              | Mild     |
| * Spleen            | Red Pulp                          | Depletion Cellular        | Mild     |
|                     | [ Depletion Cellular TGLS = 4-5 ] |                           |          |
| * Testes            | Bilateral, Interstit Cell         | Adenoma                   |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 214

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-214

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 5,6-9 ]

\* Thyroid Gland

C Cell

Adenoma

Zymbal's Gland

Carcinoma

[ Carcinoma TGLS = 2-13 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 215

TRT#: 3

SEX: Male

DAY ON TEST: 713

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-215

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                             |                            |
|--------------------------|---------------------------|-----------------------------|----------------------------|
| * Blood Vessel           | * Bone                    | * Epididymis                | * Esophagus                |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Larynx                  | * Pancreas                  | * Preputial Gland          |
| * Salivary Glands        | * Seminal Vesicle         | * Stomach, Glandular        | * Thyroid Gland            |
| * Trachea                |                           |                             |                            |

OBSERVATIONS

- |                                      |                |   |                |
|--------------------------------------|----------------|---|----------------|
| * Adrenal Cortex                     |                | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Mild           |
| * Adrenal Medulla                    |                | Leukemia Mononuclear                              |                |
| * Bone Marrow                        |                | Leukemia Mononuclear                              |                |
| * Brain                              |                | Leukemia Mononuclear<br>Necrosis                  | Moderate       |
| [ Necrosis TGLS = 10-1 ]             |                |   |                |
| * Heart                              |                | Leukemia Mononuclear                              |                |
| * Intestine Large, Cecum             |                | Leukemia Mononuclear                              |                |
| * Intestine Small, Ileum             |                | Leukemia Mononuclear                              |                |
| * Kidney                             | Transit Epithe | Hyperplasia<br>Nephropathy                        | Mild<br>Marked |
| [ Nephropathy TGLS = 7-7 ]           |                |   |                |
| * Liver                              |                | Degeneration<br>Leukemia Mononuclear              | Cystic, Mild   |
| * Lung                               |                | Leukemia Mononuclear                              |                |
| Lymph Node                           | Renal          | Leukemia Mononuclear                              |                |
| [ Leukemia Mononuclear TGLS = 8-13 ] |                |   |                |
| * Lymph Node, Bronchial              |                | Leukemia Mononuclear                              |                |
| * Lymph Node, Mandibular             |                | Leukemia Mononuclear                              |                |
| [ Leukemia Mononuclear TGLS = 2-2 ]  |                |   |                |
| * Lymph Node, Mediastinal            |                | Leukemia Mononuclear                              |                |
| [ Leukemia Mononuclear TGLS = 3-5 ]  |                |   |                |
| * Lymph Node, Mesenteric             |                | Leukemia Mononuclear                              |                |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:33

**First Dose M/F:** NA / NA

**Lab:** IIT

**ANIMAL ID:** 215

**TRT#:** 3

**DOSE:** 250 PPM

**SEX:** Male

**DISP:** Moribund Sacrifice

**DAY ON TEST:** 713

**HISTO:** 90-5201-215

**ORGAN AND ACCOUNTABLE SITE STATUS**

|  |                                |                                     |                             |
|--|--------------------------------|-------------------------------------|-----------------------------|
| * Mammary Gland<br>Note: The mammary gland is infiltrated by leukemia cells. |                                | Galactocele                         | Mild                        |
| * Nose   |                                | Leukemia Mononuclear                |                             |
| * Parathyroid Gland<br>[ Hyperplasia TGLS = 1-3.1 ]                          |                                | Hyperplasia                         | Marked                      |
| * Pituitary Gland<br>[ Adenoma TGLS = 9-1 ]                                  | Pars Distalis                  | Adenoma<br>Leukemia Mononuclear     |                             |
| * Prostate   |                                | Inflammation                        | Marked                      |
| * Skin   |                                | Leukemia Mononuclear                |                             |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 4-5,14; 5-5 ]                      |                                | Leukemia Mononuclear                |                             |
| * Stomach, Forestomach   |                                | Hyperplasia<br>Leukemia Mononuclear | Mild                        |
| * Testes   | Bilateral<br>Interstitial Cell | Ulcer<br>Atrophy<br>Hyperplasia     | Moderate<br>Mild<br>Minimal |
| * Thymus   |                                | Leukemia Mononuclear                |                             |
| * Urinary Bladder  |                                | Leukemia Mononuclear                |                             |

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 216

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 665

HISTO: 90-5201-216

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Brain                  | * Epididymis               | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal  | * Pancreas                | * Prostate                  |
| * Salivary Glands        | * Seminal Vesicle          | * Skin                    | * Stomach, Forestomach      |
| * Thymus                 | * Trachea                  | * Urinary Bladder         |                             |

MISSING

\* Preputial Gland

OBSERVATIONS

|                          |                            |                           |                  |
|--------------------------|----------------------------|---------------------------|------------------|
| * Adrenal Cortex         |                            | Degeneration              | Mild             |
|                          |                            | Vacuolization Cytoplasmic | Moderate         |
| * Adrenal Medulla        | Bilateral                  | Pheochromocytoma Benign   |                  |
| * Blood Vessel           | Aorta                      | Mineralization            | Moderate         |
| * Bone                   |                            | Fibrous Osteodystrophy    | Mild             |
| * Bone Marrow            |                            | Hyperplasia               | Mild             |
| * Kidney                 |                            | Cyst                      | Mild             |
|                          | Transit Epithe             | Hyperplasia               | Minimal          |
|                          |                            | Mineralization            | Mild             |
|                          |                            | Nephropathy               | Marked           |
|                          | [ Nephropathy TGLS = 5-7 ] |                           |                  |
| * Liver                  |                            | Degeneration              | Cystic, Minimal  |
|                          |                            | Leukemia Mononuclear      |                  |
| * Lung                   |                            | Inflammation              | Acute, Mild      |
| * Lymph Node, Bronchial  |                            | Hemorrhage                | Mild             |
|                          |                            | Infiltration Cellular     | Histiocyte, Mild |
| * Lymph Node, Mesenteric |                            | Hemorrhage                | Minimal          |
|                          | [ Hemorrhage TGLS = 7-14 ] |                           |                  |
| * Mammary Gland          |                            | Fibrosis                  | Mild             |
|                          |                            | Pigmentation              | Mild             |
| * Nose                   | Respirat Epith             | Hyperplasia               | Minimal          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 216 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 665   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-216 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|  |  |                                |                  |
|--|--|--------------------------------|------------------|
| * Parathyroid Gland<br>[ Hyperplasia TGLS = 6-3 ]            |  | Inflammation<br>Hyperplasia    | Mild<br>Moderate |
| * Pituitary Gland  | Pars Distalis                          | Hyperplasia                    | Minimal          |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 4-5 ]              |  | Leukemia Mononuclear           |                  |
| * Stomach, Glandular   |  | Degeneration<br>Mineralization | Moderate<br>Mild |
| * Testes<br>[ Adenoma TGLS = 1-9 ]<br>[ Atrophy TGLS = 2-9 ] | Bilateral, Interstit Cell<br>Bilateral | Adenoma<br>Atrophy             | Moderate         |
| * Thyroid Gland  | C Cell                                 | Adenoma                        |                  |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 217

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 629

HISTO: 90-5201-217

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lymph Node, Bronchial     | * Salivary Glands        | * Skin                     | * Thymus                  |
| * Thyroid Gland             | * Trachea                |                            |                           |

MISSING

\* Mammary Gland

OBSERVATIONS

|                             |              |              |                          |
|-----------------------------|--------------|--------------|--------------------------|
| * Adrenal Medulla           |              | Hyperplasia  | Mild                     |
| * Blood Vessel              | Aorta        | Inflammation | Minimal                  |
| * Bone Marrow               |              | Atrophy      | Marked                   |
|                             |              | Hemorrhage   | Marked                   |
| * Heart                     |              | Inflammation | Moderate                 |
| [ Inflammation TGLS = 6-4 ] |              |              |                          |
| * Kidney                    |              | Nephropathy  | Moderate                 |
| * Larynx                    |              | Inflammation | Moderate                 |
| * Liver                     | Kupffer Cell | Hyperplasia  | Mild                     |
|                             |              | Inflammation | Chronic, Mild            |
|                             |              | Thrombosis   | Mild                     |
| * Lung                      |              | Foreign Body | Mild                     |
|                             | Goblet Cell  | Hyperplasia  | Moderate                 |
|                             |              | Inflammation | Chronic Active, Moderate |
| * Lymph Node, Mandibular    |              | Inflammation | Mild                     |
| * Lymph Node, Mediastinal   |              | Hemorrhage   | Mild                     |
|                             |              | Inflammation | Moderate                 |
| [ Hemorrhage TGLS = 1-5 ]   |              |              |                          |
| [ Inflammation TGLS = 1-5 ] |              |              |                          |
| * Lymph Node, Mesenteric    |              | Inflammation | Mild                     |
| Mesentery                   | Fat          | Necrosis     | Moderate                 |
| [ Necrosis TGLS = 4-14 ]    |              |              |                          |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 217

TRT#: 3

SEX: Male

DAY ON TEST: 629

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-217

ORGAN AND ACCOUNTABLE SITE STATUS

|                            |                |                                  |               |
|----------------------------|----------------|----------------------------------|---------------|
| * Nose                     | Goblet Cell    | Hyperplasia                      | Mild          |
| * Pancreas                 |                | Inflammation                     | Mild          |
| * Parathyroid Gland        |                | Hyperplasia                      | Mild          |
| [ Hyperplasia TGLS = 2-3 ] |                |                                  |               |
| * Pituitary Gland          | Pars Distalis  | Degeneration                     | Moderate      |
|                            | Pars Distalis  | Necrosis                         | Mild          |
|                            | Pars Distalis  | Pigmentation                     | Moderate      |
| * Preputial Gland          |                | Inflammation                     | Mild          |
| * Prostate                 |                | Inflammation                     | Mild          |
| * Seminal Vesicle          |                | Inflammation                     | Moderate      |
| * Spleen                   |                | Hematopoietic Cell Proliferation | Mild          |
|                            |                | Inflammation                     | Chronic, Mild |
| * Stomach, Forestomach     |                | Inflammation                     | Mild          |
| * Stomach, Glandular       |                | Inflammation                     | Minimal       |
| * Testes                   | Interstit Cell | Adenoma                          |               |
|                            | Interstit Cell | Hyperplasia                      | Mild          |
| * Urinary Bladder          |                | Inflammation                     | Mild          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 218

TRT#: 3

SEX: Male

DAY ON TEST: 688

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-218

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     |
| * Parathyroid Gland       | * Preputial Gland           | * Salivary Glands        | * Seminal Vesicle          |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           |                          |                            |

OBSERVATIONS

|                                      |               |                         |                 |
|--------------------------------------|---------------|-------------------------|-----------------|
| * Adrenal Medulla                    | Bilateral     | Pheochromocytoma Benign |                 |
| * Bone Marrow                        |               | Leukemia Mononuclear    |                 |
| * Heart                              |               | Cardiomyopathy          | Moderate        |
| * Kidney                             |               | Leukemia Mononuclear    |                 |
|                                      |               | Nephropathy             | Mild            |
| * Liver                              |               | Degeneration            | Cystic, Minimal |
|                                      |               | Leukemia Mononuclear    |                 |
| * Lung                               |               | Leukemia Mononuclear    |                 |
| Lymph Node                           | Renal         | Leukemia Mononuclear    |                 |
| [ Leukemia Mononuclear TGLS = 3-15 ] |               |                         |                 |
| * Pancreas                           | Acinus        | Atrophy                 | Minimal         |
|                                      | Acinus        | Hyperplasia             | Mild            |
| * Pituitary Gland                    | Pars Distalis | Angiectasis             | Minimal         |
|                                      | Pars Distalis | Cyst                    | Mild            |
|                                      | Pars Distalis | Hyperplasia             | Mild            |
| [ Angiectasis TGLS = 8-1 ]           |               |                         |                 |
| [ Cyst TGLS = 8-1 ]                  |               |                         |                 |
| [ Hyperplasia TGLS = 8-1 ]           |               |                         |                 |
| * Prostate                           |               | Hyperplasia             | Mild            |
| * Skin                               |               | Basal Cell Adenoma      |                 |
|                                      | Subcut Tiss   | Fibroma                 |                 |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 218 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 688   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-218 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                       |                           |
|---------------------------------------|---------------------------|
| [ Basal Cell Adenoma TGLS = 7-14 ]    |                           |
| [ Fibroma TGLS = 6-13 ]               |                           |
| * Spleen                              | Leukemia Mononuclear      |
| [ Leukemia Mononuclear TGLS = 1,2-5 ] |                           |
| * Testes                              | Bilateral, Interstit Cell |
| [ Adenoma TGLS = 4,5-9 ]              | Adenoma                   |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 219

TRT#: 3

SEX: Male

DAY ON TEST: 467

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-219

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Nose                   |
| * Pancreas                 | * Parathyroid Gland       | * Preputial Gland           | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Spleen                    | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

MISSING

\* Larynx

OBSERVATIONS

|   |                |                           |          |
|---|----------------|---------------------------|----------|
| * Adrenal Cortex  |                | Vacuolization Cytoplasmic | Moderate |
| * Heart   |                | Cardiomyopathy            | Mild     |
| * Kidney  |                | Nephropathy               | Mild     |
| [ Nephropathy TGLS = 3-7 ]  |                |                           |          |
| * Larynx  |                |                           |          |
| Note: Larynx is present, but the proper area for evaluation was not obtained. |                |                           |          |
| * Liver   |                | Vacuolization Cytoplasmic | Marked   |
| * Mammary Gland   |                | Galactoceles              | Moderate |
| * Pituitary Gland   | Pars Distalis  | Adenoma                   |          |
| [ Adenoma TGLS = 2-1 ]  |                |                           |          |
| * Prostate  |                | Inflammation              | Moderate |
| * Stomach, Forestomach  |                | Ulcer                     | Marked   |
| Note: The ulcer has perforated the stomach wall.                              |                |                           |          |
| * Testes  | Interstit Cell | Hyperplasia               | Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 220

TRT#: 3

SEX: Male

DAY ON TEST: 707

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-220

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Mammary Gland            | * Parathyroid Gland       |
| * Prostate                  | * Salivary Glands        | * Seminal Vesicle          | * Thyroid Gland           |
| * Trachea                   |                          |                            |                           |

OBSERVATIONS

|                           |  |   |          |
|---------------------------|--|---|----------|
| * Adrenal Cortex          |  | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Moderate |
| * Adrenal Medulla         |  | Hyperplasia                                       | Mild     |
| * Bone Marrow             |  | Leukemia Mononuclear                              |          |
| * Heart                   | Atrium   | Leukemia Mononuclear<br>Thrombosis                | Moderate |
| * Kidney                  |  | Leukemia Mononuclear<br>Nephropathy               | Moderate |
| * Liver                   |  | Leukemia Mononuclear                              |          |
| * Lung                    |  | Leukemia Mononuclear                              |          |
|                           | [ Leukemia Mononuclear TGLS = 4,5,6-13 ]                       |   |          |
| * Lymph Node, Bronchial   |  | Leukemia Mononuclear                              |          |
| * Lymph Node, Mediastinal |  | Leukemia Mononuclear                              |          |
| * Lymph Node, Mesenteric  |  | Leukemia Mononuclear                              |          |
| * Mammary Gland           |  |   |          |
|                           | Note: The mammary gland is also infiltrated by leukemia cells. |   |          |
| * Nose                    |  | Foreign Body                                      | Minimal  |
|                           | Respirat Epith   | Hyperplasia                                       | Mild     |
|                           |  | Inflammation                                      | Moderate |
|                           | Respirat Epith   | Ulcer   | Minimal  |
| * Pancreas                |  | Leukemia Mononuclear                              |          |
| * Pituitary Gland         |  | Leukemia Mononuclear                              |          |
|                           | [ Leukemia Mononuclear TGLS = 3-1 ]                            |   |          |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 220

TRT#: 3

SEX: Male

DAY ON TEST: 707

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-220

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                                     |                           |                      |        |
|-------------------------------------|---------------------------|----------------------|--------|
| * Preputial Gland                   |                           | Inflammation         | Marked |
| * Skin                              |                           | Leukemia Mononuclear |        |
| * Spleen                            |                           | Leukemia Mononuclear |        |
| * Stomach, Forestomach              |                           | Leukemia Mononuclear |        |
| * Stomach, Glandular                |                           | Leukemia Mononuclear |        |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |        |
| [ Adenoma TGLS = 2-9 ]              |                           |                      |        |
| * Thymus                            |                           | Leukemia Mononuclear |        |
| [ Leukemia Mononuclear TGLS = 1-2 ] |                           |                      |        |
| * Urinary Bladder                   |                           | Leukemia Mononuclear |        |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 221

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-221

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone Marrow               | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Nose                   |
| * Parathyroid Gland        | * Preputial Gland         | * Prostate                  | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                   |                                   |                           |                 |
|-------------------|-----------------------------------|---------------------------|-----------------|
| * Adrenal Cortex  |                                   | Vacuolization Cytoplasmic | Minimal         |
| * Bone            | Turbinate                         | Chondroma                 |                 |
| * Kidney          | Transit Epithe                    | Hyperplasia               | Minimal         |
|                   |                                   | Nephropathy               | Moderate        |
|                   | [ Nephropathy TGLS = 4-7 ]        |                           |                 |
| * Liver           |                                   | Degeneration              | Cystic, Minimal |
| Lymph Node        | Renal                             | Ectasia                   | Mild            |
|                   | Renal                             | Hemorrhage                | Minimal         |
|                   | [ Ectasia TGLS = 5-13 ]           |                           |                 |
|                   | [ Hemorrhage TGLS = 5-13 ]        |                           |                 |
| * Mammary Gland   |                                   | Galactocele               | Marked          |
|                   | [ Galactocele TGLS = 1-14 ]       |                           |                 |
| * Pancreas        | Acinus                            | Atrophy                   | Minimal         |
| * Pituitary Gland | Pars Distalis                     | Angiectasis               | Marked          |
|                   | [ Angiectasis TGLS = 7-1 ]        |                           |                 |
| * Spleen          |                                   | Depletion Cellular        | Mild            |
|                   | [ Depletion Cellular TGLS = 3-5 ] |                           |                 |
| * Testes          | Interstit Cell                    | Adenoma                   |                 |
|                   | Interstit Cell                    | Hyperplasia               | Minimal         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 221

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-221

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Arteriole

Inflammation

Minimal

[ Adenoma TGLS = 2-9 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 222

TRT#: 3

SEX: Male

DAY ON TEST: 590

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-222

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Mammary Gland          | * Nose                     | * Parathyroid Gland       | * Preputial Gland           |
| * Prostate               | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

MISSING

- \* Lymph Node, Bronchial

OBSERVATIONS

- |                           |  |                         |          |
|---------------------------|--|-------------------------|----------|
| * Adrenal Cortex          |  | Leukemia Mononuclear    |          |
| * Adrenal Medulla         |  | Leukemia Mononuclear    |          |
|                           |  | Pheochromocytoma Benign |          |
| * Bone Marrow             |  | Leukemia Mononuclear    |          |
| * Brain                   |  | Necrosis                | Mild     |
| * Heart                   |  | Leukemia Mononuclear    |          |
|                           | Atrium                                 | Thrombosis              | Moderate |
|                           | [ Thrombosis TGLS = 5-4 ]              |                         |          |
| * Kidney                  |  | Leukemia Mononuclear    |          |
|                           |  | Nephropathy             | Minimal  |
|                           |  | Pigmentation            | Moderate |
| * Liver                   |  | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 3-5 ]    |                         |          |
| * Lung                    |  | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 4-6,13 ] |                         |          |
| * Lymph Node, Mandibular  |  | Leukemia Mononuclear    |          |
| * Lymph Node, Mediastinal |  | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 7-5 ]    |                         |          |
| * Lymph Node, Mesenteric  |  | Leukemia Mononuclear    |          |
| * Pancreas                | Acinus                                 | Atrophy                 | Minimal  |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 222 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 590   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-222 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |                           |                                     |      |
|-------------------------------------|---------------------------|-------------------------------------|------|
| * Pituitary Gland                   | Pars Distalis             | Hyperplasia<br>Leukemia Mononuclear | Mild |
| [ Hyperplasia TGLS = 6-1 ]          |                           |                                     |      |
| * Spleen                            |                           | Leukemia Mononuclear                |      |
| [ Leukemia Mononuclear TGLS = 2-5 ] |                           |                                     |      |
| * Testes                            | Bilateral, Interstit Cell | Adenoma                             |      |
| [ Adenoma TGLS = 1,8-9 ]            |                           |                                     |      |
| * Thymus                            |                           | Leukemia Mononuclear                |      |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 223

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 590

HISTO: 90-5201-223

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Blood Vessel             | * Bone                    | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Nose                      |
| * Parathyroid Gland      | * Preputial Gland          | * Salivary Glands         | * Seminal Vesicle           |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

MISSING

- |                   |          |
|-------------------|----------|
| * Adrenal Medulla | * Larynx |
|-------------------|----------|

OBSERVATIONS

- |  |                                      |                      |          |
|--|--------------------------------------|----------------------|----------|
| * Bone Marrow  |                                      | Leukemia Mononuclear |          |
| * Brain  |                                      | Leukemia Mononuclear |          |
|  |                                      | Necrosis             | Mild     |
| * Epididymis   |                                      | Leukemia Mononuclear |          |
| * Heart  |                                      | Leukemia Mononuclear |          |
| * Kidney   |                                      | Leukemia Mononuclear |          |
|  |                                      | Nephropathy          | Minimal  |
|  |                                      | Pigmentation         | Moderate |
| * Larynx   |                                      |                      |          |
| Note: The larynx is present, but the incorrect area is present for evaluation. |                                      |                      |          |
| * Liver  |                                      | Leukemia Mononuclear |          |
|  | [ Leukemia Mononuclear TGLS = 4-5 ]  |                      |          |
| * Lung   |                                      | Leukemia Mononuclear |          |
| Lymph Node   | Pancreatic                           | Leukemia Mononuclear |          |
|  | [ Leukemia Mononuclear TGLS = 3-13 ] |                      |          |
| * Lymph Node, Bronchial  |                                      | Leukemia Mononuclear |          |
| * Lymph Node, Mandibular   |                                      | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal  |                                      | Leukemia Mononuclear |          |
|  | [ Leukemia Mononuclear TGLS = 1-5 ]  |                      |          |
| * Lymph Node, Mesenteric   |                                      | Leukemia Mononuclear |          |
| * Mammary Gland  |                                      | Inflammation         | Moderate |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 223

TRT#: 3

SEX: Male

DAY ON TEST: 590

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-223

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: Mononuclear cell leukemia is also present in the mammary gland.

|                                     |                                |                                      |          |
|-------------------------------------|--------------------------------|--------------------------------------|----------|
| * Pancreas                          | Acinus                         | Atrophy<br>Leukemia Mononuclear      | Moderate |
| * Pituitary Gland                   | Pars Distalis<br>Pars Distalis | Leukemia Mononuclear<br>Pigmentation | Mild     |
| * Prostate                          |                                | Leukemia Mononuclear                 |          |
| * Skin                              |                                | Leukemia Mononuclear                 |          |
| * Spleen                            |                                | Leukemia Mononuclear                 |          |
| [ Leukemia Mononuclear TGLS = 2-5 ] |                                |                                      |          |
| * Testes                            | Bilateral                      | Atrophy<br>Leukemia Mononuclear      | Moderate |
| [ Atrophy TGLS = 5-9 ]              |                                |                                      |          |
| * Thyroid Gland                     | C Cell                         | Hyperplasia                          | Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 224

TRT#: 3

SEX: Male

DAY ON TEST: 669

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-224

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                           |                             |                            |
|---------------------------|---------------------------|-----------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel            | * Bone                      | * Bone Marrow              |
| * Brain                   | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum   |
| * Intestine Large, Colon  | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                    | * Lymph Node, Bronchial     | * Lymph Node, Mandibular   |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric  | * Salivary Glands           | * Seminal Vesicle          |
| * Skin                    | * Spleen                  | * Thymus                    | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder         |                             |                            |

MISSING

|          |                 |
|----------|-----------------|
| * Larynx | * Mammary Gland |
|----------|-----------------|

AUTO PRECLUDES DIAG.

|                          |
|--------------------------|
| * Intestine Small, Ileum |
|--------------------------|

OBSERVATIONS

|                        |                            |                           |          |
|------------------------|----------------------------|---------------------------|----------|
| * Adrenal Cortex       |                            | Vacuolization Cytoplasmic | Mild     |
| * Heart                |                            | Cardiomyopathy            | Mild     |
| * Kidney               |                            | Nephropathy               | Marked   |
|                        | [ Nephropathy TGLS = 2-7 ] |                           |          |
| * Liver                |                            | Vacuolization Cytoplasmic | Mild     |
| * Nose                 | Respirat Epith             | Hyperplasia               | Mild     |
|                        |                            | Inflammation              | Mild     |
| * Pancreas             | Artery                     | Degeneration              | Moderate |
| * Parathyroid Gland    |                            | Hyperplasia               | Mild     |
|                        | [ Hyperplasia TGLS = 1-3 ] |                           |          |
| * Pituitary Gland      | Pars Distalis              | Adenoma                   |          |
|                        | [ Adenoma TGLS = 6-1 ]     |                           |          |
| * Preputial Gland      |                            | Inflammation              | Mild     |
| * Prostate             |                            | Inflammation              | Mild     |
| * Stomach, Forestomach |                            | Hyperkeratosis            | Mild     |
|                        |                            | Hyperplasia               | Mild     |
|                        |                            | Inflammation              | Mild     |
| * Stomach, Glandular   |                            | Necrosis                  | Minimal  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 224 | <b>TRT#:</b> 3       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 669   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-224 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                           |                    |      |
|------------------------|---------------------------|--------------------|------|
| * Testes               | Bilateral, Interstit Cell | Adenoma<br>Atrophy | Mild |
| [ Adenoma TGLS = 5-9 ] |                           |                    |      |
| [ Atrophy TGLS = 4-9 ] |                           |                    |      |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 225

TRT#: 3

SEX: Male

DAY ON TEST: 596

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-225

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                      |                   |                          |                            |
|----------------------|-------------------|--------------------------|----------------------------|
| * Blood Vessel       | * Bone            | * Intestine Large, Cecum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Mammary Gland   | * Pancreas               | * Prostate                 |
| * Salivary Glands    | * Seminal Vesicle | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland      | * Urinary Bladder |                          |                            |

MISSING

- |          |                     |
|----------|---------------------|
| * Larynx | * Parathyroid Gland |
|----------|---------------------|

OBSERVATIONS

- |  |                      |      |
|--|----------------------|------|
| * Adrenal Cortex   | Leukemia Mononuclear |      |
| * Adrenal Medulla  | Leukemia Mononuclear |      |
| * Bone Marrow  | Leukemia Mononuclear |      |
| * Brain  | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 8-1; 9-13 ]  |                      |      |
| * Epididymis   | Leukemia Mononuclear |      |
| * Esophagus  | Leukemia Mononuclear |      |
| * Heart  | Leukemia Mononuclear |      |
| * Intestine Large, Colon   | Leukemia Mononuclear |      |
| * Intestine Large, Rectum  | Leukemia Mononuclear |      |
| * Intestine Small, Duodenum  | Leukemia Mononuclear |      |
| * Intestine Small, Ileum   | Leukemia Mononuclear |      |
| * Kidney   | Leukemia Mononuclear |      |
|  | Nephropathy          | Mild |
| [ Leukemia Mononuclear TGLS = 6-7 ]  |                      |      |
| [ Nephropathy TGLS = 6-7 ]   |                      |      |
| * Larynx   |                      |      |
| Note: The larynx is present, but the correct area for evaluation was not obtained. |                      |      |
| * Liver  | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 5-5 ]  |                      |      |
| * Lung   | Leukemia Mononuclear |      |
| Lymph Node   | Leukemia Mononuclear |      |
| Pancreatic   |                      |      |
| [ Leukemia Mononuclear TGLS = 4-14 ]   |                      |      |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 225

TRT#: 3

SEX: Male

DAY ON TEST: 596

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-225

ORGAN AND ACCOUNTABLE SITE STATUS

|   |                           |                      |      |
|---|---------------------------|----------------------|------|
| * Lymph Node, Bronchial                   |                           | Leukemia Mononuclear |      |
| * Lymph Node, Mandibular                  |                           | Leukemia Mononuclear |      |
| * Lymph Node, Mediastinal                 |                           | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 7-5 ]       |                           |                      |      |
| * Lymph Node, Mesenteric                  |                           | Leukemia Mononuclear |      |
| * Nose                                    |                           | Leukemia Mononuclear |      |
| * Pituitary Gland                         | Pars Distalis             | Adenoma              |      |
| * Preputial Gland                         |                           | Inflammation         | Mild |
| * Skin                                    |                           | Leukemia Mononuclear |      |
| * Spleen                                  |                           | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 2-5; 3-15 ] |                           |                      |      |
| * Stomach, Forestomach                    |                           | Leukemia Mononuclear |      |
| * Testes                                  | Bilateral, Interstit Cell | Adenoma              |      |
|   |                           | Leukemia Mononuclear |      |
| [ Adenoma TGLS = 1-9 ]                    |                           |                      |      |
| * Trachea                                 |                           | Leukemia Mononuclear |      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 226

TRT#: 3

SEX: Male

DAY ON TEST: 644

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-226

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Epididymis               |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lymph Node, Mesenteric    | * Nose                   | * Preputial Gland          |
| * Prostate                | * Salivary Glands           | * Seminal Vesicle        | * Stomach, Glandular       |
| * Thymus                  | * Trachea                   | * Urinary Bladder        |                            |

OBSERVATIONS

- |                           |        |                                      |                   |
|---------------------------|--------|--------------------------------------|-------------------|
| * Adrenal Cortex          |        | Vacuolization Cytoplasmic            | Minimal           |
| * Adrenal Medulla         |        | Hyperplasia                          | Minimal           |
| * Bone Marrow             |        | Leukemia Mononuclear                 |                   |
| * Kidney                  |        | Leukemia Mononuclear                 |                   |
|                           |        | Nephropathy                          | Mild              |
| * Larynx                  |        | Leukemia Mononuclear                 |                   |
| * Liver                   |        | Leukemia Mononuclear                 |                   |
|                           |        | [ Leukemia Mononuclear TGLS = 4-5 ]  |                   |
| * Lung                    |        | Leukemia Mononuclear                 |                   |
| Lymph Node                | Renal  | Hyperplasia                          | Plasma Cell, Mild |
|                           | Renal  | Leukemia Mononuclear                 |                   |
|                           | Renal  | Pigmentation                         | Mild              |
|                           |        | [ Hyperplasia TGLS = 5-14 ]          |                   |
|                           |        | [ Leukemia Mononuclear TGLS = 5-14 ] |                   |
|                           |        | [ Pigmentation TGLS = 5-14 ]         |                   |
| * Lymph Node, Bronchial   |        | Ectasia                              | Mild              |
|                           |        | Infiltration Cellular                | Histiocyte, Mild  |
|                           |        | Leukemia Mononuclear                 |                   |
| * Lymph Node, Mandibular  |        | Hyperplasia                          | Plasma Cell, Mild |
| * Lymph Node, Mediastinal |        | Leukemia Mononuclear                 |                   |
|                           |        | [ Leukemia Mononuclear TGLS = 1-5 ]  |                   |
| * Mammary Gland           |        | Galactocele                          | Moderate          |
| * Pancreas                | Acinus | Atrophy                              | Moderate          |

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 226

TRT#: 3

SEX: Male

DAY ON TEST: 644

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-226

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                        |  |                      |         |
|------------------------|--|----------------------|---------|
| * Parathyroid Gland    |  | Hyperplasia          | Mild    |
| * Pituitary Gland      | Pars Distalis                          | Adenoma              |         |
|                        | [ Adenoma TGLS = 8-1 ]                 |                      |         |
| * Skin                 | Pinna                                  | Schwannoma Malignant |         |
|                        | [ Schwannoma Malignant TGLS = 6-15 ]   |                      |         |
| * Spleen               |  | Leukemia Mononuclear |         |
|                        | [ Leukemia Mononuclear TGLS = 2,3-13 ] |                      |         |
| * Stomach, Forestomach |  | Hyperplasia          | Mild    |
|                        |  | Leukemia Mononuclear |         |
| * Testes               | Interstit Cell                         | Hyperplasia          | Minimal |
| * Thyroid Gland        | C Cell                                 | Hyperplasia          | Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 227

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-227

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Epididymis               | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Mammary Gland            | * Nose                    |
| * Pancreas                  | * Parathyroid Gland      | * Preputial Gland          | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

OBSERVATIONS

|                                     |                           |                      |              |
|-------------------------------------|---------------------------|----------------------|--------------|
| * Kidney                            |                           | Nephropathy          | Mild         |
| * Liver                             |                           | Degeneration         | Cystic, Mild |
|                                     |                           | Leukemia Mononuclear |              |
| [ Degeneration TGLS = 7-5 ]         |                           |                      |              |
| * Pituitary Gland                   | Pars Distalis             | Adenoma              |              |
| [ Adenoma TGLS = 4-1 ]              |                           |                      |              |
| * Prostate                          |                           | Inflammation         | Mild         |
| * Spleen                            |                           | Depletion Cellular   | Mild         |
|                                     |                           | Leukemia Mononuclear |              |
| [ Depletion Cellular TGLS = 1-5 ]   |                           |                      |              |
| [ Leukemia Mononuclear TGLS = 6-5 ] |                           |                      |              |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |              |
| [ Adenoma TGLS = 2-9 ]              |                           |                      |              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 228

TRT#: 3

SEX: Male

DAY ON TEST: 591

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-228

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Parathyroid Gland        | * Preputial Gland         |
| * Prostate                  | * Salivary Glands        | * Seminal Vesicle          | * Skin                    |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           |                          |                            |                           |

MISSING

- \* Mammary Gland

OBSERVATIONS

- |                           |                           |   |                    |
|---------------------------|---------------------------|---|--------------------|
| * Adrenal Cortex          |                           | Leukemia Mononuclear<br>Vacuolization Cytoplasmic   | Mild               |
| * Adrenal Medulla         |                           | Leukemia Mononuclear                                |                    |
| * Bone Marrow             |                           | Leukemia Mononuclear                                |                    |
| * Heart                   |                           | Leukemia Mononuclear                                |                    |
| * Kidney                  |                           | Leukemia Mononuclear<br>Nephropathy<br>Pigmentation | Minimal<br>Minimal |
| * Liver                   |                           | Leukemia Mononuclear                                |                    |
| * Lung                    |                           | Leukemia Mononuclear                                |                    |
| * Lymph Node, Bronchial   |                           | Leukemia Mononuclear                                |                    |
| * Lymph Node, Mediastinal |                           | Leukemia Mononuclear                                |                    |
| * Lymph Node, Mesenteric  |                           | Leukemia Mononuclear                                |                    |
| * Nose                    |                           | Leukemia Mononuclear                                |                    |
| * Pancreas                | Acinus                    | Atrophy   | Moderate           |
|                           |                           | Leukemia Mononuclear                                |                    |
| * Pituitary Gland         | Pars Distalis             | Hyperplasia   | Mild               |
| * Spleen                  |                           | Leukemia Mononuclear                                |                    |
| * Testes                  | Bilateral, Interstit Cell | Adenoma   |                    |

[ Adenoma TGLS = 1-9 ]

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 228

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 591

**DOSE:** 250 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-228

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Leukemia Mononuclear

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 229

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 668

**DOSE:** 250 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-229

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                           |                      |                 |
|--------------------------|---------------------------|----------------------|-----------------|
| * Blood Vessel           | * Bone                    | * Epididymis         | * Esophagus     |
| * Intestine Large, Cecum | * Intestine Large, Rectum | * Islets, Pancreatic | * Larynx        |
| * Mammary Gland          | * Parathyroid Gland       | * Skin               | * Thyroid Gland |
| * Trachea                |                           |                      |                 |

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

|  |                      |         |
|--|----------------------|---------|
| * Adrenal Cortex                       | Leukemia Mononuclear |         |
| * Adrenal Medulla                      | Hyperplasia          | Mild    |
|  | Leukemia Mononuclear |         |
| * Bone Marrow                          | Leukemia Mononuclear |         |
| * Brain                                | Leukemia Mononuclear |         |
| * Heart                                | Leukemia Mononuclear |         |
| * Intestine Large, Colon               | Leukemia Mononuclear |         |
| * Intestine Small, Duodenum            | Leukemia Mononuclear |         |
| * Intestine Small, Ileum               | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 15-15 ]  |                      |         |
| * Intestine Small, Jejunum             | Leukemia Mononuclear |         |
| * Kidney                               | Leukemia Mononuclear |         |
|  | Nephropathy          | Minimal |
| [ Leukemia Mononuclear TGLS = 13-7 ]   |                      |         |
| * Liver                                | Leukemia Mononuclear |         |
| * Lung                                 | Leukemia Mononuclear |         |
| * Lymph Node, Mandibular               | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 9,10-2 ] |                      |         |
| * Lymph Node, Mediastinal              | Leukemia Mononuclear |         |
| * Lymph Node, Mesenteric               | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 14-8 ]   |                      |         |
| * Nose                                 | Leukemia Mononuclear |         |
| * Pancreas                             | Leukemia Mononuclear |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 229 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 668   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-229 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                           |                      |          |
|---|---------------------------|----------------------|----------|
| * Pituitary Gland                           |                           | Leukemia Mononuclear |          |
| * Preputial Gland                           |                           | Leukemia Mononuclear |          |
| * Prostate                                  |                           | Leukemia Mononuclear |          |
| * Salivary Glands                           |                           | Leukemia Mononuclear |          |
| * Seminal Vesicle                           |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 12-14 ]       |                           |                      |          |
| * Spleen                                    |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 5,11-5;6-13 ] |                           |                      |          |
| * Stomach, Forestomach                      |                           | Leukemia Mononuclear |          |
| * Stomach, Glandular                        |                           | Leukemia Mononuclear |          |
| * Testes                                    | Bilateral, Interstit Cell | Adenoma              |          |
| [ Adenoma TGLS = 4-9 ]                      |                           | Atrophy              | Moderate |
| [ Atrophy TGLS = 3-9 ]                      |                           |                      |          |
| * Thymus                                    |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 8-2 ]         |                           |                      |          |
| * Urinary Bladder                           |                           | Leukemia Mononuclear |          |

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 230

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 624

**DOSE:** 250 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-230

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Epididymis               | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Mandibular | * Nose                     | * Pancreas                | * Preputial Gland           |
| * Prostate               | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Spleen                 | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

|                            |                |                           |         |
|----------------------------|----------------|---------------------------|---------|
| * Adrenal Cortex           |                | Vacuolization Cytoplasmic | Minimal |
| * Kidney                   |                | Nephropathy               | Marked  |
| [ Nephropathy TGLS = 2-7 ] |                |                           |         |
| * Larynx                   |                | Inflammation              | Minimal |
| * Liver                    |                | Vacuolization Cytoplasmic | Marked  |
| * Lymph Node, Mediastinal  |                | Hemorrhage                | Minimal |
| * Lymph Node, Mesenteric   |                | Hemorrhage                | Minimal |
| * Mammary Gland            |                | Galactoceles              | Minimal |
| * Parathyroid Gland        |                | Hyperplasia               | Mild    |
| [ Hyperplasia TGLS = 1-3 ] |                |                           |         |
| * Pituitary Gland          | Pars Distalis  | Adenoma                   |         |
| [ Adenoma TGLS = 4-1 ]     |                |                           |         |
| * Stomach, Forestomach     |                | Hyperplasia               | Mild    |
|                            |                | Ulcer                     | Marked  |
| * Stomach, Glandular       |                | Inflammation              | Mild    |
| * Testes                   | Interstit Cell | Adenoma                   |         |
|                            | Interstit Cell | Hyperplasia               | Minimal |
| [ Adenoma TGLS = 6-9 ]     |                |                           |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 230

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 624

**DOSE:** 250 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-230

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 231

TRT#: 3

SEX: Male

DAY ON TEST: 720

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-231

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Epididymis               | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Pancreas                |
| * Preputial Gland           | * Salivary Glands        | * Seminal Vesicle          | * Skin                    |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

MISSING

|                         |                     |
|-------------------------|---------------------|
| * Lymph Node, Bronchial | * Parathyroid Gland |
|-------------------------|---------------------|

OBSERVATIONS

|  |                |  |                      |
|--|----------------|--|----------------------|
| * Adrenal Cortex                         |                | Leukemia Mononuclear<br>Vacuolization Cytoplasmic                  | Moderate             |
| [ Vacuolization Cytoplasmic TGLS = 6-3 ] |                |  |                      |
| * Adrenal Medulla                        |                | Hyperplasia<br>Leukemia Mononuclear                                | Mild                 |
| * Bone Marrow                            |                | Leukemia Mononuclear   |                      |
| * Brain                                  |                | Mineralization   | Minimal              |
| * Kidney                                 | Transit Epithe | Hyperplasia<br>Leukemia Mononuclear<br>Nephropathy<br>Pigmentation | Mild<br>Mild<br>Mild |
| [ Nephropathy TGLS = 7-7 ]               |                |  |                      |
| * Liver                                  |                | Leukemia Mononuclear   |                      |
| [ Leukemia Mononuclear TGLS = 4,5-5 ]    |                |  |                      |
| * Lung                                   |                | Leukemia Mononuclear   |                      |
| * Lymph Node, Mediastinal                |                | Leukemia Mononuclear   |                      |
| * Mammary Gland                          |                | Fibroadenoma<br>Hyperplasia  | Mild                 |
| * Nose                                   |                | Leukemia Mononuclear   |                      |
| * Pituitary Gland                        | Pars Distalis  | Hyperplasia  | Mild                 |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 231 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 720   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-231 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

|            |  |                      |      |
|------------|--|----------------------|------|
| * Prostate | Pars Distalis                          | Leukemia Mononuclear |      |
| * Spleen   |  | Inflammation         | Mild |
|            | [ Leukemia Mononuclear TGLS = 2,3-13 ] | Leukemia Mononuclear |      |
| * Testes   | Bilateral, Interstit Cell              | Adenoma              |      |
|            | [ Adenoma TGLS = 1-9 ]                 |                      |      |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 232

TRT#: 3

SEX: Male

DAY ON TEST: 619

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-232

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                          |                           |                             |
|--------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla        | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                  | * Epididymis              | * Esophagus                 |
| * Heart                  | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Islets, Pancreatic     | * Larynx                  | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Mammary Gland          | * Nose                   | * Pancreas                | * Parathyroid Gland         |
| * Preputial Gland        | * Salivary Glands        | * Seminal Vesicle         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach   | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                | * Urinary Bladder         |                             |

AUTO PRECLUDES DIAG.

- |                          |                            |
|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

- |                            |                           |                           |              |
|----------------------------|---------------------------|---------------------------|--------------|
| * Kidney                   |                           | Nephropathy               | Mild         |
| * Liver                    |                           | Degeneration              | Cystic, Mild |
|                            |                           | Vacuolization Cytoplasmic | Mild         |
| * Pituitary Gland          | Pars Distalis             | Angiectasis               | Marked       |
| [ Angiectasis TGLS = 4-1 ] |                           |                           |              |
| * Prostate                 |                           | Inflammation              | Mild         |
| * Testes                   | Bilateral, Interstit Cell | Adenoma                   |              |
| [ Adenoma TGLS = 1,2-9 ]   |                           |                           |              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 233

TRT#: 3

SEX: Male

DAY ON TEST: 589

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-233

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                   |                          |                          |                            |
|-------------------|--------------------------|--------------------------|----------------------------|
| * Blood Vessel    | * Bone                   | * Brain                  | * Epididymis               |
| * Esophagus       | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Jejunum |
| * Larynx          | * Lymph Node, Bronchial  | * Parathyroid Gland      | * Preputial Gland          |
| * Salivary Glands | * Seminal Vesicle        | * Skin                   | * Stomach, Glandular       |
| * Thyroid Gland   | * Trachea                | * Urinary Bladder        |                            |

OBSERVATIONS

|                             |                |                      |                 |
|-----------------------------|----------------|----------------------|-----------------|
| * Adrenal Cortex            |                | Leukemia Mononuclear |                 |
| * Adrenal Medulla           |                | Leukemia Mononuclear |                 |
| * Bone Marrow               |                | Leukemia Mononuclear |                 |
| * Heart                     | Atrium         | Leukemia Mononuclear |                 |
|                             |                | Thrombosis           | Moderate        |
| * Intestine Large, Rectum   |                | Leukemia Mononuclear |                 |
| * Intestine Small, Duodenum |                | Leukemia Mononuclear |                 |
| * Intestine Small, Ileum    |                | Leukemia Mononuclear |                 |
| * Islets, Pancreatic        |                | Hyperplasia          | Moderate        |
| * Kidney                    | Transit Epithe | Hyperplasia          | Mild            |
|                             |                | Leukemia Mononuclear |                 |
|                             |                | Nephropathy          | Minimal         |
|                             |                | Pigmentation         | Mild            |
| * Liver                     |                | Degeneration         | Cystic, Minimal |
|                             |                | Leukemia Mononuclear |                 |
| * Lung                      |                | Leukemia Mononuclear |                 |
| * Lymph Node, Mandibular    |                | Leukemia Mononuclear |                 |
| * Lymph Node, Mediastinal   |                | Leukemia Mononuclear |                 |
| * Lymph Node, Mesenteric    |                | Leukemia Mononuclear |                 |
| * Mammary Gland             |                | Galactocele          | Mild            |
| * Nose                      |                | Foreign Body         | Mild            |
|                             | Respirat Epith | Hyperplasia          | Minimal         |
|                             |                | Inflammation         | Mild            |
|                             |                | Leukemia Mononuclear |                 |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 233

TRT#: 3

SEX: Male

DAY ON TEST: 589

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-233

**ORGAN AND ACCOUNTABLE SITE STATUS**

|  |                |                      |        |
|--|----------------|----------------------|--------|
| * Pancreas   | Acinus         | Atrophy              | Mild   |
|  |                | Leukemia Mononuclear |        |
| * Pituitary Gland  | Pars Distalis  | Leukemia Mononuclear |        |
| [ Leukemia Mononuclear TGLS = 3-1 ]  |                |                      |        |
| * Prostate   |                | Inflammation         | Marked |
| Note: The prostate (abscess) adhered to the abdominal and appeared to be a skin (subcutaneous) lesion. |                |                      |        |
| [ Inflammation TGLS = 2-9 ]  |                |                      |        |
| * Spleen   |                | Leukemia Mononuclear |        |
| [ Leukemia Mononuclear TGLS = 1-5 ]  |                |                      |        |
| * Stomach, Forestomach   |                | Leukemia Mononuclear |        |
| * Testes   | Interstit Cell | Adenoma              |        |
|  | Interstit Cell | Hyperplasia          | Mild   |
|  |                | Leukemia Mononuclear |        |
| * Thymus   |                | Leukemia Mononuclear |        |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 234

TRT#: 3

SEX: Male

DAY ON TEST: 703

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-234

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                   |                          |                           |                      |
|-------------------|--------------------------|---------------------------|----------------------|
| * Blood Vessel    | * Bone                   | * Brain                   | * Epididymis         |
| * Esophagus       | * Intestine Large, Colon | * Intestine Large, Rectum | * Islets, Pancreatic |
| * Larynx          | * Parathyroid Gland      | * Preputial Gland         | * Salivary Glands    |
| * Seminal Vesicle | * Skin                   | * Stomach, Forestomach    | * Stomach, Glandular |
| * Thymus          | * Thyroid Gland          | * Trachea                 | * Urinary Bladder    |

MISSING

\* Mammary Gland

AUTO PRECLUDES DIAG.

\* Intestine Small, Jejunum

OBSERVATIONS

|                             |                             |                      |                  |
|-----------------------------|-----------------------------|----------------------|------------------|
| * Adrenal Cortex            |                             | Leukemia Mononuclear |                  |
| * Adrenal Medulla           |                             | Hyperplasia          | Mild             |
|                             |                             | Leukemia Mononuclear |                  |
| * Bone Marrow               |                             | Leukemia Mononuclear |                  |
| * Heart                     | Atrium                      | Thrombosis           | Moderate         |
|                             | [ Thrombosis TGLS = 5-4 ]   |                      |                  |
| * Intestine Large, Cecum    |                             | Leukemia Mononuclear |                  |
| * Intestine Small, Duodenum |                             | Leukemia Mononuclear |                  |
| * Intestine Small, Ileum    |                             | Leukemia Mononuclear |                  |
| * Kidney                    |                             | Leukemia Mononuclear |                  |
|                             |                             | Nephropathy          | Mild             |
|                             |                             | Pigmentation         | Mild             |
| * Liver                     |                             | Degeneration         | Cystic, Moderate |
|                             |                             | Leukemia Mononuclear |                  |
|                             | [ Degeneration TGLS = 4-5 ] |                      |                  |
| * Lung                      | Alveolar Epith              | Hyperplasia          | Mild             |
|                             |                             | Leukemia Mononuclear |                  |
| * Lymph Node, Bronchial     |                             | Leukemia Mononuclear |                  |
| * Lymph Node, Mandibular    |                             | Leukemia Mononuclear |                  |
| * Lymph Node, Mediastinal   |                             | Leukemia Mononuclear |                  |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 234

TRT#: 3

SEX: Male

DAY ON TEST: 703

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-234

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                          |                                     |                      |          |
|--------------------------|-------------------------------------|----------------------|----------|
| * Lymph Node, Mesenteric |                                     | Leukemia Mononuclear |          |
| * Nose                   |                                     | Angiectasis          | Moderate |
|                          |                                     | Leukemia Mononuclear |          |
| * Pancreas               |                                     | Leukemia Mononuclear |          |
| * Pituitary Gland        | Pars Distalis                       | Leukemia Mononuclear |          |
| * Prostate               |                                     | Inflammation         | Mild     |
| * Spleen                 |                                     | Leukemia Mononuclear |          |
|                          | [ Leukemia Mononuclear TGLS = 3-5 ] |                      |          |
| * Testes                 | Bilateral, Interstit Cell           | Adenoma              |          |
|                          |                                     | Atrophy              | Mild     |
|                          | [ Adenoma TGLS = 2-9 ]              |                      |          |
|                          | [ Atrophy TGLS = 1-9 ]              |                      |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 235

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 671

HISTO: 90-5201-235

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Mammary Gland             |
| * Nose                   | * Preputial Gland          | * Prostate                | * Salivary Glands           |
| * Seminal Vesicle        | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |

OBSERVATIONS

|                            |                           |                        |               |
|----------------------------|---------------------------|------------------------|---------------|
| * Adrenal Medulla          |                           | Hyperplasia            | Mild          |
| * Blood Vessel             | Aorta                     | Mineralization         | Moderate      |
| * Bone                     |                           | Fibrous Osteodystrophy | Mild          |
| * Bone Marrow              |                           | Hyperplasia            | Mild          |
| * Heart                    |                           | Cardiomyopathy         | Mild          |
| * Kidney                   | Renal Tubule              | Adenoma                |               |
|                            | Transit Epithe            | Hyperplasia            | Mild          |
|                            |                           | Nephropathy            | Marked        |
| [ Nephropathy TGLS = 2-7 ] |                           |                        |               |
| * Liver                    |                           | Degeneration           | Cystic, Mild  |
| * Lung                     |                           | Inflammation           | Chronic, Mild |
| * Lymph Node, Mesenteric   |                           | Hemorrhage             | Moderate      |
| * Pancreas                 | Acinus                    | Atrophy                | Mild          |
| * Parathyroid Gland        |                           | Hyperplasia            | Marked        |
| [ Hyperplasia TGLS = 1-3 ] |                           |                        |               |
| * Pituitary Gland          | Pars Distalis             | Adenoma                |               |
| * Skin                     | Sebaceous GI              | Adenoma                |               |
| [ Adenoma TGLS = 5-13 ]    |                           |                        |               |
| * Testes                   | Bilateral, Interstit Cell | Adenoma                |               |
|                            |                           | Atrophy                | Moderate      |
| [ Adenoma TGLS = 3-9 ]     |                           |                        |               |
| [ Atrophy TGLS = 4-9 ]     |                           |                        |               |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 235

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 671

**DOSE:** 250 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-235

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 236

TRT#: 3

SEX: Male

DAY ON TEST: 723

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-236

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                          |                           |                          |
|----------------------------|--------------------------|---------------------------|--------------------------|
| * Blood Vessel             | * Bone                   | * Brain                   | * Epididymis             |
| * Esophagus                | * Intestine Large, Cecum | * Intestine Large, Rectum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Larynx                  | * Mammary Gland          |
| * Parathyroid Gland        | * Thyroid Gland          | * Trachea                 |                          |

OBSERVATIONS

|   |                |                      |         |
|---|----------------|----------------------|---------|
| * Adrenal Cortex  |                | Leukemia Mononuclear |         |
| * Adrenal Medulla   |                | Leukemia Mononuclear |         |
| * Bone Marrow   |                | Leukemia Mononuclear |         |
| * Heart   |                | Leukemia Mononuclear |         |
| * Intestine Large, Colon                                  |                | Leukemia Mononuclear |         |
| * Intestine Small, Duodenum                               |                | Leukemia Mononuclear |         |
| * Kidney  | Transit Epithe | Hyperplasia          | Minimal |
|   |                | Leukemia Mononuclear |         |
|   |                | Nephropathy          | Minimal |
| * Liver   |                | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 6-5 ]                       |                |                      |         |
| * Lung  |                | Leukemia Mononuclear |         |
| * Lymph Node, Bronchial                                   |                | Leukemia Mononuclear |         |
| * Lymph Node, Mandibular                                  |                | Leukemia Mononuclear |         |
| * Lymph Node, Mediastinal                                 |                | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 2-5 ]                       |                |                      |         |
| * Lymph Node, Mesenteric                                  |                | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 7-8 ]                       |                |                      |         |
| * Mammary Gland   |                |                      |         |
| Note: The mammary gland is infiltrated by leukemic cells. |                |                      |         |
| * Nose  |                | Leukemia Mononuclear |         |
| * Pancreas  |                | Leukemia Mononuclear |         |
| * Pituitary Gland   | Pars Distalis  | Adenoma              |         |
|   |                | Leukemia Mononuclear |         |
| [ Adenoma TGLS = 9-1 ]                                    |                |                      |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 236

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 723

**DOSE:** 250 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-236

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                                      |                |                      |          |
|--------------------------------------|----------------|----------------------|----------|
| [ Leukemia Mononuclear TGLS = 9-1 ]  |                |                      |          |
| * Preputial Gland                    |                | Inflammation         | Mild     |
|                                      |                | Leukemia Mononuclear |          |
| * Prostate                           |                | Inflammation         | Mild     |
|                                      |                | Leukemia Mononuclear |          |
| * Salivary Glands                    |                | Leukemia Mononuclear |          |
| * Seminal Vesicle                    |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 8-10 ] |                |                      |          |
| * Skin                               |                | Leukemia Mononuclear |          |
| * Spleen                             |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 5-5 ]  |                |                      |          |
| * Stomach, Forestomach               |                | Leukemia Mononuclear |          |
| * Stomach, Glandular                 |                | Leukemia Mononuclear |          |
| * Testes                             | Interstit Cell | Adenoma              |          |
|                                      |                | Atrophy              | Moderate |
|                                      | Interstit Cell | Hyperplasia          | Mild     |
| [ Adenoma TGLS = 4-9 ]               |                |                      |          |
| [ Atrophy TGLS = 3-9 ]               |                |                      |          |
| * Thymus                             |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 1-2 ]  |                |                      |          |
| * Urinary Bladder                    |                | Leukemia Mononuclear |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 237

TRT#: 3

SEX: Male

DAY ON TEST: 420

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-237

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    | * Larynx                 |
| * Lung                     | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Pancreas                | * Parathyroid Gland         | * Preputial Gland        |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

MISSING

|                         |          |
|-------------------------|----------|
| * Lymph Node, Bronchial | * Thymus |
|-------------------------|----------|

OBSERVATIONS

|                           |                |                           |         |
|---------------------------|----------------|---------------------------|---------|
| * Brain                   |                | Glioma Malignant          |         |
| * Heart                   |                | Cardiomyopathy            | Mild    |
| * Liver                   |                | Vacuolization Cytoplasmic | Mild    |
| * Lymph Node, Mediastinal |                | Hemorrhage                | Mild    |
|                           |                | Pigmentation              | Minimal |
| * Pituitary Gland         | Pars Distalis  | Adenoma                   |         |
| [ Adenoma TGLS = 1-1 ]    |                |                           |         |
| * Stomach, Glandular      |                | Inflammation              | Mild    |
| * Testes                  | Interstit Cell | Adenoma                   |         |
|                           | Interstit Cell | Hyperplasia               | Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 238

TRT#: 3

SEX: Male

DAY ON TEST: 266

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-238

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                         |                          |                           |                             |
|-------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex        | * Adrenal Medulla        | * Blood Vessel            | * Bone                      |
| * Bone Marrow           | * Brain                  | * Epididymis              | * Esophagus                 |
| * Heart                 | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Islets, Pancreatic    | * Kidney                 | * Liver                   | * Lung                      |
| * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Mammary Gland         | * Nose                   | * Pancreas                | * Parathyroid Gland         |
| * Pituitary Gland       | * Preputial Gland        | * Salivary Glands         | * Seminal Vesicle           |
| * Spleen                | * Stomach, Forestomach   | * Stomach, Glandular      | * Testes                    |
| * Thymus                | * Thyroid Gland          | * Trachea                 | * Urinary Bladder           |

MISSING

\* Larynx

AUTO PRECLUDES DIAG.

|                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

\* Larynx

Note: The larynx is present, but the proper area for evaluation was not obtained.

|            |  |              |      |
|------------|--|--------------|------|
| * Prostate |  | Inflammation | Mild |
|------------|--|--------------|------|

|        |             |        |  |
|--------|-------------|--------|--|
| * Skin | Subcut Tiss | Myxoma |  |
|--------|-------------|--------|--|

Note: The tumor in the subcutaneous tissue is myxomatous.

[ Myxoma TGLS = 1-13 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 239

TRT#: 3

SEX: Male

DAY ON TEST: 712

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-239

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                          |                           |                          |
|----------------------------|--------------------------|---------------------------|--------------------------|
| * Blood Vessel             | * Bone                   | * Epididymis              | * Esophagus              |
| * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Larynx                  | * Mammary Gland          |
| * Pancreas                 | * Parathyroid Gland      | * Salivary Glands         | * Seminal Vesicle        |
| * Skin                     | * Stomach, Glandular     | * Thyroid Gland           | * Trachea                |

OBSERVATIONS

- |                             |   |                      |              |
|-----------------------------|---|----------------------|--------------|
| * Adrenal Cortex            |   | Leukemia Mononuclear |              |
| * Adrenal Medulla           |   | Leukemia Mononuclear |              |
| * Bone Marrow               |   | Leukemia Mononuclear |              |
| * Brain                     |   | Leukemia Mononuclear |              |
|                             | [ Leukemia Mononuclear TGLS = 11-1,13 ] |                      |              |
| * Heart                     |   | Leukemia Mononuclear |              |
| * Intestine Small, Duodenum |   | Leukemia Mononuclear |              |
| * Kidney                    |   | Leukemia Mononuclear |              |
|                             |   | Nephropathy          | Minimal      |
| * Liver                     |   | Degeneration         | Cystic, Mild |
|                             | [ Degeneration TGLS = 4-5 ]             |                      |              |
|                             | [ Leukemia Mononuclear TGLS = 4-5 ]     |                      |              |
| * Lung                      |   | Leukemia Mononuclear |              |
| Lymph Node                  | Renal                                   | Leukemia Mononuclear |              |
|                             | [ Leukemia Mononuclear TGLS = 7-14 ]    |                      |              |
| * Lymph Node, Bronchial     |   | Leukemia Mononuclear |              |
| * Lymph Node, Mandibular    |   | Leukemia Mononuclear |              |
| * Lymph Node, Mediastinal   |   | Leukemia Mononuclear |              |
|                             | [ Leukemia Mononuclear TGLS = 2-5 ]     |                      |              |
| * Lymph Node, Mesenteric    |   | Leukemia Mononuclear |              |
|                             | [ Leukemia Mononuclear TGLS = 8-8 ]     |                      |              |
| Mesentery                   | Fat                                     | Necrosis             | Mild         |
|                             | [ Necrosis TGLS = 9-13 ]                |                      |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 239 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 712   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-239 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                           |                                      |              |
|---|---------------------------|--------------------------------------|--------------|
| * Nose  | Respirat Epith            | Hyperplasia<br>Inflammation          | Mild<br>Mild |
| * Pituitary Gland<br>[ Leukemia Mononuclear TGLS = 10-1 ] | Pars Distalis             | Leukemia Mononuclear                 |              |
| * Preputial Gland   |                           | Inflammation                         | Mild         |
| * Prostate  |                           | Inflammation<br>Leukemia Mononuclear | Mild         |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 3-14 ]          |                           | Leukemia Mononuclear                 |              |
| * Stomach, Forestomach                                    |                           | Leukemia Mononuclear                 |              |
| * Testes<br>[ Adenoma TGLS = 5-9 ]                        | Bilateral, Interstit Cell | Adenoma                              |              |
| * Thymus  |                           | Leukemia Mononuclear                 |              |
| * Urinary Bladder   |                           | Leukemia Mononuclear                 |              |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 240

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-240

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Mammary Gland            | * Preputial Gland         | * Salivary Glands           |
| * Seminal Vesicle        | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |                             |

OBSERVATIONS

|                           |                                     |                         |          |
|---------------------------|-------------------------------------|-------------------------|----------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear    |          |
| * Adrenal Medulla         |                                     | Leukemia Mononuclear    |          |
|                           |                                     | Pheochromocytoma Benign |          |
| * Bone                    |                                     | Hyperostosis            | Marked   |
| * Bone Marrow             |                                     | Leukemia Mononuclear    |          |
| * Heart                   |                                     | Leukemia Mononuclear    |          |
| * Kidney                  |                                     | Leukemia Mononuclear    |          |
|                           |                                     | Nephropathy             | Mild     |
|                           | [ Leukemia Mononuclear TGLS = 7-7 ] |                         |          |
|                           | [ Nephropathy TGLS = 7-7 ]          |                         |          |
| * Liver                   |                                     | Leukemia Mononuclear    |          |
|                           | [ Leukemia Mononuclear TGLS = 6-5 ] |                         |          |
| * Lung                    |                                     | Leukemia Mononuclear    |          |
| * Lymph Node, Bronchial   |                                     | Leukemia Mononuclear    |          |
| * Lymph Node, Mediastinal |                                     | Leukemia Mononuclear    |          |
| * Lymph Node, Mesenteric  |                                     | Leukemia Mononuclear    |          |
| * Nose                    | Respirat Epith                      | Hyperplasia             | Minimal  |
| * Pancreas                | Acinus                              | Atrophy                 | Mild     |
| * Parathyroid Gland       |                                     | Hyperplasia             | Minimal  |
| * Pituitary Gland         | Pars Distalis                       | Adenoma                 |          |
|                           | Pars Distalis                       | Cyst                    | Mild     |
|                           | [ Adenoma TGLS = 8-1 ]              |                         |          |
| * Prostate                |                                     | Inflammation            | Moderate |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 240 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 734   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-240 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|          |  |  |
|----------|--|--|
| * Skin   |  | Cyst Epithelial Inclusion<br>Keratoacanthoma |
|          | [ Cyst Epithelial Inclusion TGLS = 2-13 ]<br>[ Keratoacanthoma TGLS = 1-13 ] |  |
| * Spleen |  | Leukemia Mononuclear                         |
|          | [ Leukemia Mononuclear TGLS = 5-5 ]  |  |
| * Testes | Bilateral, Interstit Cell  | Adenoma                                      |
|          | [ Adenoma TGLS = 3-9 ]   |  |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 241

TRT#: 3

SEX: Male

DAY ON TEST: 734

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-241

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Brain                  | * Epididymis               | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     | * Pancreas                |
| * Pituitary Gland           | * Preputial Gland        | * Prostate                 | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |                              |                         |                  |
|---------------------------|------------------------------|-------------------------|------------------|
| * Adrenal Medulla         |                              | Hyperplasia             | Mild             |
|                           |                              | Pheochromocytoma Benign |                  |
| * Blood Vessel            | Aorta                        | Mineralization          | Mild             |
| * Bone                    |                              | Fibrous Osteodystrophy  | Mild             |
| * Bone Marrow             |                              | Leukemia Mononuclear    |                  |
| * Kidney                  | Renal Tubule                 | Adenoma                 |                  |
|                           |                              | Leukemia Mononuclear    |                  |
|                           |                              | Nephropathy             | Marked           |
|                           | [ Nephropathy TGLS = 6-7 ]   |                         |                  |
| * Larynx                  |                              | Infiltration Cellular   | Lymphocyte, Mild |
| * Liver                   |                              | Degeneration            | Cystic, Moderate |
|                           |                              | Leukemia Mononuclear    |                  |
|                           | [ Degeneration TGLS = 8-14 ] |                         |                  |
| * Lung                    |                              | Leukemia Mononuclear    |                  |
| * Lymph Node, Mandibular  |                              | Leukemia Mononuclear    |                  |
| * Lymph Node, Mediastinal |                              | Leukemia Mononuclear    |                  |
| * Parathyroid Gland       |                              | Fibrosis                | Moderate         |
|                           |                              | Hyperplasia             | Marked           |
|                           | [ Fibrosis TGLS = 7-3 ]      |                         |                  |
|                           | [ Hyperplasia TGLS = 7-3 ]   |                         |                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 241 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 734   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-241 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                                     |                      |      |
|------------------------|-------------------------------------|----------------------|------|
| * Spleen               |                                     | Fibrosis             | Mild |
|                        |                                     | Leukemia Mononuclear |      |
|                        | [ Fibrosis TGLS = 2-5 ]             |                      |      |
|                        | [ Leukemia Mononuclear TGLS = 1-5 ] |                      |      |
| * Stomach, Forestomach |                                     | Leukemia Mononuclear |      |
|                        |                                     | Ulcer                | Mild |
|                        | [ Ulcer TGLS = 9-13 ]               |                      |      |
| * Stomach, Glandular   |                                     | Mineralization       | Mild |
| * Testes               | Bilateral, Interstit Cell           | Adenoma              |      |
|                        | [ Adenoma TGLS = 3,4,5-9 ]          |                      |      |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 242

TRT#: 3

SEX: Male

DAY ON TEST: 528

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-242

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Epididymis               | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Lymph Node, Mesenteric | * Pancreas                 | * Parathyroid Gland       | * Prostate                  |
| * Salivary Glands        | * Seminal Vesicle          | * Skin                    | * Spleen                    |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

OBSERVATIONS

|   |                |                           |          |
|---|----------------|---------------------------|----------|
| * Brain   |                | Hydrocephalus             | Moderate |
| Note: The brain is compressed by the pituitary tumor. |                |                           |          |
| * Kidney  |                | Nephropathy               | Mild     |
| * Liver   |                | Vacuolization Cytoplasmic | Mild     |
| * Mammary Gland                                       |                | Galactocele               | Mild     |
| * Nose  | Respirat Epith | Hyperplasia               | Minimal  |
|   |                | Inflammation              | Mild     |
| * Pituitary Gland                                     | Pars Distalis  | Adenoma                   |          |
| [ Adenoma TGLS = 3-1 ]                                |                |                           |          |
| * Preputial Gland                                     |                | Inflammation              | Mild     |
| * Sem Ves   |                |                           |          |
| Note: The seminal vesicles are depleted of secretion. |                |                           |          |
| * Stomach, Forestomach                                |                | Hyperplasia               | Moderate |
|   |                | Ulcer                     | Moderate |
| * Testes  |                | Atrophy                   | Mild     |
| [ Atrophy TGLS = 2-9 ]                                |                |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 243

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 527

HISTO: 90-5201-243

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                           |                          |                            |
|--------------------------|---------------------------|--------------------------|----------------------------|
| * Adrenal Medulla        | * Blood Vessel            | * Bone                   | * Bone Marrow              |
| * Brain                  | * Esophagus               | * Heart                  | * Intestine Large, Cecum   |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Larynx                  | * Lung                   | * Lymph Node, Mandibular   |
| * Mammary Gland          | * Pancreas                | * Parathyroid Gland      | * Preputial Gland          |
| * Prostate               | * Salivary Glands         | * Seminal Vesicle        | * Skin                     |
| * Spleen                 | * Stomach, Glandular      | * Thymus                 | * Thyroid Gland            |
| * Trachea                | * Urinary Bladder         |                          |                            |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|  |                |                           |          |
|--|----------------|---------------------------|----------|
| * Adrenal Cortex                         |                | Vacuolization Cytoplasmic | Moderate |
| * Epididymis                             |                | Mesothelioma Malignant    |          |
| * Intestine Small, Duodenum              |                | Necrosis                  | Mild     |
| * Kidney                                 |                | Nephropathy               | Moderate |
| [ Nephropathy TGLS = 3-7 ]               |                |                           |          |
| * Liver                                  |                | Vacuolization Cytoplasmic | Moderate |
| [ Vacuolization Cytoplasmic TGLS = 2-5 ] |                |                           |          |
| * Lymph Node, Mediastinal                |                | Hemorrhage                | Minimal  |
| * Lymph Node, Mesenteric                 |                | Hemorrhage                | Mild     |
| * Nose                                   | Nasolacrim Dct | Inflammation              | Mild     |
| * Pituitary Gland                        | Pars Distalis  | Adenoma                   |          |
|  | Pars Distalis  | Angiectasis               | Mild     |
| [ Adenoma TGLS = 5-1 ]                   |                |                           |          |
| * Stomach, Forestomach                   |                | Ulcer                     | Marked   |
| [ Ulcer TGLS = 7-14 ]                    |                |                           |          |
| * Testes                                 |                | Mesothelioma Malignant    |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 244

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 708

HISTO: 90-5201-244

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                          |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                  |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic     | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                   |
| * Preputial Gland         | * Prostate                  | * Salivary Glands        | * Seminal Vesicle        |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                 |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |                          |

MISSING

|          |                     |
|----------|---------------------|
| * Larynx | * Parathyroid Gland |
|----------|---------------------|

AUTO PRECLUDES DIAG.

|                          |                            |
|--------------------------|----------------------------|
| * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

|                           |                                     |                      |                 |
|---------------------------|-------------------------------------|----------------------|-----------------|
| * Adrenal Medulla         |                                     | Hyperplasia          | Mild            |
| * Bone Marrow             |                                     | Leukemia Mononuclear |                 |
| * Heart                   |                                     | Cardiomyopathy       | Mild            |
| * Kidney                  | Transit Epithe                      | Hyperplasia          | Minimal         |
|                           |                                     | Nephropathy          | Mild            |
|                           | [ Nephropathy TGLS = 7-7 ]          |                      |                 |
| * Liver                   |                                     | Degeneration         | Cystic, Minimal |
|                           |                                     | Leukemia Mononuclear |                 |
|                           | [ Leukemia Mononuclear TGLS = 8-5 ] |                      |                 |
| * Lung                    |                                     | Leukemia Mononuclear |                 |
| * Lymph Node, Mediastinal |                                     | Pigmentation         | Minimal         |
| * Pancreas                | Acinus                              | Atrophy              | Mild            |
| * Pituitary Gland         | Pars Distalis                       | Angiectasis          | Marked          |
|                           | [ Angiectasis TGLS = 5-1 ]          |                      |                 |
| * Spleen                  |                                     | Leukemia Mononuclear |                 |
|                           | [ Leukemia Mononuclear TGLS = 4-5 ] |                      |                 |
| * Testes                  | Interstit Cell                      | Adenoma              |                 |
|                           |                                     | Atrophy              | Mild            |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 244

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 708

**DOSE:** 250 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-244

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 1,2-9 ]

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PRIMARY CAUSE OF DEATH

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-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 245

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 643

HISTO: 90-5201-245

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                        |                      |                             |
|----------------------------|------------------------|----------------------|-----------------------------|
| * Blood Vessel             | * Bone                 | * Esophagus          | * Intestine Small, Duodenum |
| * Intestine Small, Jejunum | * Islets, Pancreatic   | * Larynx             | * Lymph Node, Mandibular    |
| * Pancreas                 | * Parathyroid Gland    | * Preputial Gland    | * Salivary Glands           |
| * Skin                     | * Stomach, Forestomach | * Stomach, Glandular | * Thyroid Gland             |
| * Trachea                  |                        |                      |                             |

AUTO PRECLUDES DIAG.

- |                          |                          |                           |                          |
|--------------------------|--------------------------|---------------------------|--------------------------|
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum |
|--------------------------|--------------------------|---------------------------|--------------------------|

OBSERVATIONS

- |   |                      |      |
|---|----------------------|------|
| * Adrenal Cortex                            | Leukemia Mononuclear |      |
| * Adrenal Medulla                           | Leukemia Mononuclear |      |
| * Bone Marrow                               | Leukemia Mononuclear |      |
| * Brain                                     | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 8-1 ]         |                      |      |
| * Epididymis                                | Inflammation         | Mild |
| * Heart                                     | Leukemia Mononuclear |      |
| * Kidney                                    | Leukemia Mononuclear |      |
|   | Nephropathy          | Mild |
| * Liver                                     | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 3-14;4,5-5 ]  |                      |      |
| * Lung                                      | Leukemia Mononuclear |      |
| * Lymph Node, Bronchial                     | Leukemia Mononuclear |      |
| * Lymph Node, Mediastinal                   | Leukemia Mononuclear |      |
| * Lymph Node, Mesenteric                    | Leukemia Mononuclear |      |
| * Mammary Gland                             | Adenoma              |      |
| * Nose                                      | Leukemia Mononuclear |      |
| * Pituitary Gland                           | Leukemia Mononuclear |      |
| * Prostate                                  | Leukemia Mononuclear |      |
| * Seminal Vesicle                           | Leukemia Mononuclear |      |
| * Spleen                                    | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 1-5,13; 2-5 ] |                      |      |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 245 | <b>TRT#:</b> 3       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 643   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-245 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                    |                           |                      |
|------------------------------------|---------------------------|----------------------|
| * Testes<br>[ Adenoma TGLS = 7-9 ] | Bilateral, Interstit Cell | Adenoma              |
| * Thymus                           |                           | Leukemia Mononuclear |
| * Urinary Bladder                  |                           | Leukemia Mononuclear |

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 246

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 703

HISTO: 90-5201-246

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Mesenteric    |
| * Parathyroid Gland      | * Preputial Gland          | * Prostate                | * Salivary Glands           |
| * Seminal Vesicle        | * Skin                     | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          |                           |                             |

OBSERVATIONS

- |                           |  |                      |          |
|---------------------------|--|----------------------|----------|
| * Adrenal Cortex          |  | Leukemia Mononuclear |          |
| * Adrenal Medulla         |  | Leukemia Mononuclear |          |
| * Bone Marrow             |  | Leukemia Mononuclear |          |
| * Brain                   |  | Leukemia Mononuclear |          |
| * Heart                   |  | Leukemia Mononuclear |          |
| * Kidney                  |  | Leukemia Mononuclear |          |
|                           |  | Nephropathy          | Mild     |
| * Larynx                  |  | Leukemia Mononuclear |          |
| * Liver                   |  | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 2-5 ]    |                      |          |
| * Lung                    |  | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 3-6,13 ] |                      |          |
| * Lymph Node, Bronchial   |  | Leukemia Mononuclear |          |
| * Lymph Node, Mandibular  |  | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal |  | Leukemia Mononuclear |          |
| * Mammary Gland           |  | Galactocele          | Moderate |
| * Nose                    |  | Leukemia Mononuclear |          |
| * Pancreas                | Acinus                                 | Atrophy              | Mild     |
|                           |  | Leukemia Mononuclear |          |
| * Pituitary Gland         | Pars Distalis                          | Adenoma              |          |
|                           |  | Leukemia Mononuclear |          |
|                           | [ Adenoma TGLS = 4-1 ]                 |                      |          |
| * Spleen                  |  | Leukemia Mononuclear |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 246 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 703   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-246 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 1-5 ]

|                        |                |                      |         |
|------------------------|----------------|----------------------|---------|
| * Stomach, Forestomach |                | Hyperplasia          | Mild    |
|                        |                | Leukemia Mononuclear |         |
| * Stomach, Glandular   |                | Necrosis             | Mild    |
| * Testes               | Interstit Cell | Hyperplasia          | Minimal |
|                        |                | Leukemia Mononuclear |         |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 247

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-247

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Nose                    | * Pituitary Gland           | * Preputial Gland        |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

**OBSERVATIONS**

|  |                           |                         |          |
|--|---------------------------|-------------------------|----------|
| * Adrenal Medulla                      |                           | Pheochromocytoma Benign |          |
| [ Pheochromocytoma Benign TGLS = 9-3 ] |                           |                         |          |
| * Heart                                |                           | Cardiomyopathy          | Mild     |
| * Kidney                               | Renal Tubule              | Hyperplasia             | Mild     |
|  | Transit Epithe            | Hyperplasia             | Mild     |
|  |                           | Nephropathy             | Moderate |
| [ Nephropathy TGLS = 5-7 ]             |                           |                         |          |
| * Liver                                |                           | Clear Cell Focus        | Mild     |
| [ Clear Cell Focus TGLS = 6-5 ]        |                           |                         |          |
| * Lung                                 |                           | Hemorrhage              | Minimal  |
| * Lymph Node, Bronchial                |                           | Hemorrhage              | Minimal  |
| * Lymph Node, Mediastinal              |                           | Hemorrhage              | Mild     |
| * Mammary Gland                        |                           | Hyperplasia             | Mild     |
| [ Hyperplasia TGLS = 1-8 ]             |                           |                         |          |
| * Pancreas                             | Acinus                    | Atrophy                 | Mild     |
| * Parathyroid Gland                    |                           | Hyperplasia             | Mild     |
| * Prostate                             |                           | Inflammation            | Minimal  |
| * Spleen                               |                           | Depletion Cellular      | Mild     |
| [ Depletion Cellular TGLS = 3-5 ]      |                           |                         |          |
| * Testes                               | Bilateral, Interstit Cell | Adenoma                 |          |
| [ Adenoma TGLS = 4-9 ]                 |                           |                         |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 247

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-247

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 248

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 703

HISTO: 90-5201-248

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | * Blood Vessel           | * Bone                     | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lymph Node, Mandibular    | * Lymph Node, Mesenteric | * Mammary Gland            | * Parathyroid Gland       |
| Peripheral Nerve            | * Preputial Gland        | * Prostate                 | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | Spinal Cord                | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          |                           |

OBSERVATIONS

|                                     |        |                           |              |
|-------------------------------------|--------|---------------------------|--------------|
| * Adrenal Cortex                    |        | Vacuolization Cytoplasmic | Mild         |
| * Bone Marrow                       |        | Leukemia Mononuclear      |              |
| * Brain                             |        | Leukemia Mononuclear      |              |
| * Heart                             |        | Leukemia Mononuclear      |              |
| * Kidney                            |        | Leukemia Mononuclear      |              |
|                                     |        | Nephropathy               | Mild         |
|                                     |        | Pigmentation              | Mild         |
| * Larynx                            |        | Leukemia Mononuclear      |              |
| * Liver                             |        | Degeneration              | Cystic, Mild |
|                                     |        | Leukemia Mononuclear      |              |
| [ Leukemia Mononuclear TGLS = 3-5 ] |        |                           |              |
| * Lung                              |        | Leukemia Mononuclear      |              |
| * Lymph Node, Bronchial             |        | Leukemia Mononuclear      |              |
| * Lymph Node, Mediastinal           |        | Leukemia Mononuclear      |              |
| * Nose                              |        | Leukemia Mononuclear      |              |
| * Pancreas                          | Acinus | Atrophy                   | Mild         |
|                                     |        | Leukemia Mononuclear      |              |
| * Pituitary Gland                   |        | Leukemia Mononuclear      |              |
| * Spleen                            |        | Leukemia Mononuclear      |              |
| [ Leukemia Mononuclear TGLS = 2-5 ] |        |                           |              |
| * Stomach, Forestomach              |        | Hyperplasia               | Moderate     |
|                                     |        | Leukemia Mononuclear      |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 248 | <b>TRT#:</b> 3       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 703   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-248 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                           |                      |          |
|------------------------|---------------------------|----------------------|----------|
| * Stomach, Glandular   |                           | Ulcer                | Moderate |
| * Testes               | Bilateral, Interstit Cell | Leukemia Mononuclear |          |
| [ Adenoma TGLS = 1-9 ] |                           | Adenoma              |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 249

TRT#: 3

SEX: Male

DAY ON TEST: 591

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-249

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                          |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Blood Vessel            | * Bone                      | * Esophagus              | * Intestine Large, Cecum |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic     |
| * Mammary Gland           | * Parathyroid Gland         | * Salivary Glands        | * Skin                   |
| Spinal Cord               | * Trachea                   |                          |                          |

MISSING

|          |                         |          |
|----------|-------------------------|----------|
| * Larynx | * Lymph Node, Bronchial | * Thymus |
|----------|-------------------------|----------|

OBSERVATIONS

|   |                                     |                      |         |
|---|-------------------------------------|----------------------|---------|
| * Adrenal Cortex  |                                     | Leukemia Mononuclear |         |
| * Adrenal Medulla   | Bilateral                           | Hyperplasia          | Mild    |
| * Bone Marrow   |                                     | Leukemia Mononuclear |         |
| * Brain   |                                     | Leukemia Mononuclear |         |
| * Epididymis  |                                     | Leukemia Mononuclear |         |
| * Heart   |                                     | Leukemia Mononuclear |         |
| * Intestine Large, Colon  |                                     | Leukemia Mononuclear |         |
| * Intestine Small, Jejunum  |                                     | Leukemia Mononuclear |         |
| * Kidney  |                                     | Leukemia Mononuclear |         |
|   |                                     | Nephropathy          | Minimal |
| * Larynx  |                                     |                      |         |
| Note: The larynx is present, but the correct section for evaluation was not obtained. |                                     |                      |         |
| * Liver   |                                     | Leukemia Mononuclear |         |
|   | [ Leukemia Mononuclear TGLS = 5-5 ] |                      |         |
| * Lung  |                                     | Leukemia Mononuclear |         |
|   | [ Leukemia Mononuclear TGLS = 7-6 ] |                      |         |
| * Lymph Node, Mandibular  |                                     | Leukemia Mononuclear |         |
| * Lymph Node, Mediastinal   |                                     | Leukemia Mononuclear |         |
|   | [ Leukemia Mononuclear TGLS = 6-5 ] |                      |         |
| * Lymph Node, Mesenteric  |                                     | Leukemia Mononuclear |         |
|   | [ Leukemia Mononuclear TGLS = 9-8 ] |                      |         |
| * Mammary GI  |                                     |                      |         |

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 249

TRT#: 3

SEX: Male

DAY ON TEST: 591

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-249

ORGAN AND ACCOUNTABLE SITE STATUS

Note: The mammary gland is infiltrated with leukemia cells.

|                                     |  |                                 |          |
|-------------------------------------|--|---------------------------------|----------|
| * Nose                              |  | Leukemia Mononuclear            |          |
| * Pancreas                          |  | Leukemia Mononuclear            |          |
| * Pituitary Gland                   |  | Leukemia Mononuclear            |          |
| * Preputial Gland                   |  | Atrophy                         | Marked   |
| [ Atrophy TGLS = 1-10 ]             |  |                                 |          |
| * Prostate                          |  | Leukemia Mononuclear            |          |
| * Seminal Vesicle                   |  | Leukemia Mononuclear            |          |
| * Spleen                            |  | Leukemia Mononuclear            |          |
| [ Leukemia Mononuclear TGLS = 4-5 ] |  |                                 |          |
| * Stomach, Forestomach              |  | Leukemia Mononuclear            |          |
| * Stomach, Glandular                |  | Leukemia Mononuclear            |          |
| * Testes                            | Bilateral, Interstit Cell<br>Bilateral | Adenoma<br>Atrophy              | Moderate |
| [ Adenoma TGLS = 3-9 ]              |  |                                 |          |
| [ Atrophy TGLS = 2-9 ]              |  |                                 |          |
| * Thyroid Gland                     | C Cell                                 | Adenoma<br>Leukemia Mononuclear |          |
| [ Adenoma TGLS = 8-3 ]              |  |                                 |          |
| * Urinary Bladder                   |  | Leukemia Mononuclear            |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 250

TRT#: 3

DOSE: 250 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 686

HISTO: 90-5201-250

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Pancreas                | * Parathyroid Gland         | Peripheral Nerve         |
| * Preputial Gland          | * Prostate                | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | Spinal Cord               | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Trachea                   | * Urinary Bladder        |

OBSERVATIONS

|                            |                           |                    |                 |
|----------------------------|---------------------------|--------------------|-----------------|
| * Adrenal Cortex           |                           | Hyperplasia        | Mild            |
| * Bone Marrow              |                           | Hyperplasia        | Moderate        |
| Harderian Gland            |                           | Carcinoma          |                 |
| [ Carcinoma TGLS = 6-15 ]  |                           |                    |                 |
| * Kidney                   |                           | Nephropathy        | Moderate        |
| [ Nephropathy TGLS = 2-7 ] |                           |                    |                 |
| * Liver                    |                           | Basophilic Focus   | Minimal         |
|                            |                           | Degeneration       | Cystic, Minimal |
|                            |                           | Eosinophilic Focus | Mild            |
| * Lymph Node, Mediastinal  |                           | Hemorrhage         | Mild            |
| Mesentery                  |                           | Lipoma             |                 |
| [ Lipoma TGLS = 5-14 ]     |                           |                    |                 |
| * Pituitary Gland          | Pars Distalis             | Hemorrhage         | Mild            |
| * Testes                   | Bilateral, Interstit Cell | Adenoma            |                 |
| [ Adenoma TGLS = 4-9 ]     |                           |                    |                 |
| * Thyroid Gland            | C Cell                    | Hyperplasia        | Mild            |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 301

TRT#: 4

SEX: Male

DAY ON TEST: 702

DOSE: 750 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-301

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Bone Marrow              | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                     | * Stomach, Forestomach    |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

OBSERVATIONS

|                           |  |                        |                         |
|---------------------------|--|------------------------|-------------------------|
| * Blood Vessel            | Aorta  | Inflammation           | Mild                    |
|                           | Aorta  | Mineralization         | Moderate                |
| * Bone                    |  | Fibrous Osteodystrophy | Mild                    |
| * Brain                   |  | Necrosis               | Mild                    |
| * Heart                   |  | Cardiomyopathy         | Mild                    |
| * Kidney                  |  | Cyst                   | Moderate                |
|                           | Transit Epithe   | Hyperplasia            | Mild                    |
|                           |  | Nephropathy            | Marked                  |
|                           | [ Cyst TGLS = 5-13 ]   |                        |                         |
|                           | [ Nephropathy TGLS = 4-7 ]   |                        |                         |
| * Liver                   |  | Degeneration           | Cystic, Mild            |
| * Lung                    |  | Inflammation           | Chronic Active, Minimal |
| * Lymph Node, Bronchial   |  | Pigmentation           | Mild                    |
| * Lymph Node, Mediastinal |  | Pigmentation           | Mild                    |
| * Nose                    | Respirat Epith   | Hyperplasia            | Mild                    |
| * Pancreas                | Acinus   | Atrophy                | Mild                    |
| * Parathyroid Gland       |  | Hyperplasia            | Mild                    |
|                           | Note: An ectopic hyperplastic parathyroid gland is in the mediastinum. |                        |                         |
|                           | [ Hyperplasia TGLS = 2-2 ]   |                        |                         |
| * Pituitary Gland         | Pars Distalis  | Hyperplasia            | Mild                    |
| * Preputial Gland         |  | Inflammation           | Mild                    |
| * Prostate                |  | Inflammation           | Mild                    |
| * Spleen                  |  | Depletion Cellular     | Mild                    |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 301 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 702   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-301 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                   |                           |              |              |
|-----------------------------------|---------------------------|--------------|--------------|
| [ Depletion Cellular TGLS = 3-5 ] |                           |              |              |
| * Stomach, Glandular              |                           | Degeneration | Cystic, Mild |
| * Testes                          | Bilateral, Interstit Cell | Adenoma      |              |
|                                   |                           | Atrophy      | Moderate     |
| [ Adenoma TGLS = 6-9 ]            |                           |              |              |
| [ Atrophy TGLS = 7-9 ]            |                           |              |              |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 302

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 668

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-302

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                             |                          |                          |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone Marrow            |
| * Brain                   | * Epididymis                | * Esophagus              | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic     | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Mammary Gland          |
| * Nose                    | * Pancreas                  | * Preputial Gland        | * Prostate               |
| * Salivary Glands         | * Seminal Vesicle           | * Skin                   | * Spleen                 |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 | * Thyroid Gland          |
| * Trachea                 | * Urinary Bladder           |                          |                          |

**AUTO PRECLUDES DIAG.**

|                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

**OBSERVATIONS**

|                     |                            |                        |                 |
|---------------------|----------------------------|------------------------|-----------------|
| * Bone              |                            | Fibrous Osteodystrophy | Minimal         |
| * Heart             |                            | Cardiomyopathy         | Mild            |
| * Kidney            | Transit Epithe             | Hyperplasia            | Mild            |
|                     |                            | Nephropathy            | Marked          |
|                     | [ Nephropathy TGLS = 4-7 ] |                        |                 |
| * Larynx            |                            | Inflammation           | Minimal         |
| * Liver             |                            | Degeneration           | Cystic, Minimal |
| * Lung              |                            | Congestion             | Moderate        |
|                     |                            | Edema                  | Moderate        |
|                     | [ Congestion TGLS = 2-6 ]  |                        |                 |
|                     | [ Edema TGLS = 2-6 ]       |                        |                 |
| * Parathyroid Gland |                            | Hyperplasia            | Moderate        |
|                     | [ Hyperplasia TGLS = 1-3 ] |                        |                 |
| * Pituitary Gland   | Pars Distalis              | Angiectasis            | Moderate        |
|                     | Pars Distalis              | Hyperplasia            | Mild            |
| * Testes            | Bilateral, Interstit Cell  | Adenoma                |                 |
|                     | [ Adenoma TGLS = 6,7-9 ]   |                        |                 |

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 303

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-303

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Nose                   | * Pancreas                 |
| * Parathyroid Gland       | * Preputial Gland           | * Salivary Glands        | * Seminal Vesicle          |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |                            |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                   |                              |                         |                 |
|-------------------|------------------------------|-------------------------|-----------------|
| * Adrenal Medulla |                              | Pheochromocytoma Benign |                 |
| * Bone Marrow     |                              | Hyperplasia             | Mild            |
| * Heart           |                              | Cardiomyopathy          | Minimal         |
| * Kidney          | Transit Epithe               | Hyperplasia             | Mild            |
|                   |                              | Nephropathy             | Moderate        |
|                   | [ Nephropathy TGLS = 4-7 ]   |                         |                 |
| * Liver           |                              | Basophilic Focus        | Minimal         |
|                   |                              | Degeneration            | Cystic, Minimal |
|                   |                              | Eosinophilic Focus      | Minimal         |
| Lymph Node        | Renal                        | Ectasia                 | Moderate        |
|                   | Renal                        | Hemorrhage              | Mild            |
|                   | Renal                        | Pigmentation            | Mild            |
|                   | [ Ectasia TGLS = 5-14 ]      |                         |                 |
|                   | [ Hemorrhage TGLS = 5-14 ]   |                         |                 |
|                   | [ Pigmentation TGLS = 5-14 ] |                         |                 |
| * Mammary Gland   |                              | Hyperplasia             | Mild            |
| * Pituitary Gland | Pars Distalis                | Adenoma                 |                 |
|                   | [ Adenoma TGLS = 6-1 ]       |                         |                 |
| * Prostate        |                              | Inflammation            | Moderate        |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 303

**TRT#:** 4  
**DOSE:** 750 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 734  
**HISTO:** 90-5201-303

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Skin  
[ Lipoma TGLS = 1-13 ]

Subcut Tiss

Lipoma

\* Testes  
[ Adenoma TGLS = 2-9 ]

Bilateral, Interstit Cell

Adenoma

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 304

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 567

HISTO: 90-5201-304

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Bone Marrow            | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lymph Node, Mandibular    | * Lymph Node, Mesenteric | * Nose                     |
| * Pancreas                | * Preputial Gland           | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Spleen                 | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |                            |

MISSING

|          |                           |
|----------|---------------------------|
| * Larynx | * Lymph Node, Mediastinal |
|----------|---------------------------|

OBSERVATIONS

|                         |                |                            |              |
|-------------------------|----------------|----------------------------|--------------|
| * Adrenal Cortex        |                | Vacuolization Cytoplasmic  | Mild         |
| * Adrenal Medulla       |                | Hyperplasia                | Minimal      |
| * Heart                 |                | Cardiomyopathy             | Mild         |
|                         |                | Mineralization             | Minimal      |
| * Kidney                | Renal Tubule   | Hyperplasia                | Mild         |
|                         | Transit Epithe | Hyperplasia                | Mild         |
|                         |                | Nephropathy                | Marked       |
|                         |                | [ Nephropathy TGLS = 4-7 ] |              |
| * Liver                 |                | Degeneration               | Cystic, Mild |
| * Lung                  | Alveolar Epith | Hyperplasia                | Minimal      |
| * Lymph Node, Bronchial |                | Hemorrhage                 | Moderate     |
|                         |                | Pigmentation               | Mild         |
| * Mammary Gland         |                | Galactocele                | Mild         |
| Mesentery               | Fat            | Necrosis                   | Moderate     |
|                         |                | [ Necrosis TGLS = 3-13 ]   |              |
| * Parathyroid Gland     |                | Hyperplasia                | Moderate     |
|                         |                | [ Hyperplasia TGLS = 5-3 ] |              |
| * Pituitary Gland       | Pars Distalis  | Adenoma                    |              |
| * Stomach, Forestomach  |                | Hyperplasia                | Mild         |
|                         |                | Inflammation               | Minimal      |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 304 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 567   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-304 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                          |                           |                |      |
|--------------------------|---------------------------|----------------|------|
| * Stomach, Glandular     |                           | Mineralization | Mild |
| * Testes                 | Bilateral, Interstit Cell | Adenoma        |      |
| [ Adenoma TGLS = 1,2-9 ] |                           |                |      |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 305

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 643

HISTO: 90-5201-305

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Mammary Gland           | * Nose                      |
| * Preputial Gland        | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

OBSERVATIONS

|                           |                              |                    |              |
|---------------------------|------------------------------|--------------------|--------------|
| * Heart                   |                              | Cardiomyopathy     | Mild         |
| * Kidney                  | Transit Epithe               | Hyperplasia        | Mild         |
|                           |                              | Nephropathy        | Marked       |
|                           | [ Nephropathy TGLS = 6,7-7 ] |                    |              |
| * Liver                   |                              | Degeneration       | Cystic, Mild |
|                           |                              | Eosinophilic Focus | Mild         |
|                           |                              | Necrosis           | Mild         |
|                           | [ Degeneration TGLS = 9-5 ]  |                    |              |
|                           | [ Necrosis TGLS = 9-5 ]      |                    |              |
| * Lymph Node, Bronchial   |                              | Pigmentation       | Minimal      |
| * Lymph Node, Mediastinal |                              | Edema              | Mild         |
|                           |                              | Pigmentation       | Minimal      |
| * Lymph Node, Mesenteric  |                              | Hemorrhage         | Mild         |
| * Pancreas                | Acinus                       | Atrophy            | Minimal      |
| * Parathyroid Gland       |                              | Hyperplasia        | Mild         |
|                           | [ Hyperplasia TGLS = 1-3 ]   |                    |              |
| * Pituitary Gland         | Pars Distalis                | Angiectasis        | Mild         |
|                           | Pars Distalis                | Hyperplasia        | Mild         |
|                           | [ Angiectasis TGLS = 12-1 ]  |                    |              |
|                           | [ Hyperplasia TGLS = 12-1 ]  |                    |              |
| * Prostate                |                              | Inflammation       | Minimal      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:33

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 305

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 643

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-305

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|  |                           |                             |              |
|--|---------------------------|-----------------------------|--------------|
| * Spleen<br>[ Fibrosis TGLS = 3,4-13 ] |                           | Fibrosis                    | Mild         |
| * Stomach, Forestomach                 |                           | Hyperplasia<br>Inflammation | Mild<br>Mild |
| * Testes<br>[ Adenoma TGLS = 10,11-9 ] | Bilateral, Interstit Cell | Adenoma                     |              |

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 306

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 588

HISTO: 90-5201-306

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lymph Node, Bronchial     | * Lymph Node, Mandibular | * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric  |
| * Nose                      | * Pancreas               | * Salivary Glands          | * Seminal Vesicle         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach     | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

MISSING

|          |                   |          |
|----------|-------------------|----------|
| * Larynx | * Pituitary Gland | * Thymus |
|----------|-------------------|----------|

OBSERVATIONS

|  |                |                         |          |
|--|----------------|-------------------------|----------|
| * Adrenal Medulla  |                | Pheochromocytoma Benign |          |
| [ Pheochromocytoma Benign TGLS = 1-3 ]   |                |                         |          |
| * Blood Vessel   | Aorta          | Mineralization          | Moderate |
| * Bone Marrow  |                | Hyperplasia             | Mild     |
| * Heart  |                | Cardiomyopathy          | Moderate |
|  |                | Mineralization          | Mild     |
| * Kidney   | Renal Tubule   | Hyperplasia             | Mild     |
|  |                | Nephropathy             | Marked   |
| [ Nephropathy TGLS = 3-7 ]   |                |                         |          |
| * Larynx   |                |                         |          |
| Note: The larynx is present, but the correct area for evaluation was not obtained. |                |                         |          |
| * Liver  |                | Eosinophilic Focus      | Minimal  |
| * Lung   | Alveolar Epith | Hyperplasia             | Mild     |
|  | Interstitial   | Inflammation            | Mild     |
| [ Inflammation TGLS = 2,7-13 ]   |                |                         |          |
| * Mammary Gland  |                | Pigmentation            | Mild     |
| * Parathyroid Gland  |                | Hyperplasia             | Marked   |
| [ Hyperplasia TGLS = 8-3 ]   |                |                         |          |
| * Preputial Gland  |                | Inflammation            | Marked   |
| * Prostate   |                | Inflammation            | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 306 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 588   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-306 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                          |                           |                |          |
|--------------------------|---------------------------|----------------|----------|
| * Stomach, Glandular     |                           | Mineralization | Moderate |
| * Testes                 | Bilateral, Interstit Cell | Adenoma        |          |
|                          |                           | Mineralization | Mild     |
| [ Adenoma TGLS = 4,5-9 ] |                           |                |          |

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 307

TRT#: 4

SEX: Male

DAY ON TEST: 719

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-307

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                             |                          |                          |
|--------------------------|-----------------------------|--------------------------|--------------------------|
| * Adrenal Cortex         | * Blood Vessel              | * Bone                   | * Brain                  |
| * Epididymis             | * Esophagus                 | * Heart                  | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Small, Duodenum | * Islets, Pancreatic     | * Larynx                 |
| * Lung                   | * Lymph Node, Bronchial     | * Lymph Node, Mandibular | * Lymph Node, Mesenteric |
| * Mammary Gland          | * Nose                      | * Pancreas               | * Salivary Glands        |
| * Seminal Vesicle        | * Spleen                    | * Thymus                 | * Thyroid Gland          |
| * Trachea                | * Urinary Bladder           |                          |                          |

MISSING

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

|                           |                          |                            |
|---------------------------|--------------------------|----------------------------|
| * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|---------------------------|--------------------------|----------------------------|

OBSERVATIONS

|                           |  |                           |                  |
|---------------------------|--|---------------------------|------------------|
| * Adrenal Medulla         | Bilateral                                | Pheochromocytoma Benign   |                  |
| * Bone Marrow             |  | Hyperplasia               | Moderate         |
| * Kidney                  | Transit Epithe                           | Hyperplasia               | Minimal          |
|                           |  | Nephropathy               | Marked           |
|                           | [ Nephropathy TGLS = 5-7 ]               |                           |                  |
| * Liver                   |  | Vacuolization Cytoplasmic | Marked           |
|                           | [ Vacuolization Cytoplasmic TGLS = 4-5 ] |                           |                  |
| * Lymph Node, Mediastinal |  | Infiltration Cellular     | Histiocyte, Mild |
| * Pituitary Gland         | Pars Distalis                            | Hyperplasia               | Minimal          |
| * Preputial Gland         |  | Adenoma                   |                  |
|                           | [ Adenoma TGLS = 1-13 ]                  |                           |                  |
| * Prostate                |  | Inflammation              | Mild             |
| * Skin                    |  | Basal Cell Carcinoma      |                  |
|                           | [ Basal Cell Carcinoma TGLS = 6-14 ]     |                           |                  |
| * Stomach, Forestomach    |  | Hyperplasia               | Mild             |
|                           |  | Ulcer                     | Moderate         |
| * Stomach, Glandular      |  | Ulcer                     | Mild             |
| * Testes                  | Bilateral, Interstit Cell                | Adenoma                   |                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 307

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 719

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-307

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 2-9 ]

[ Atrophy TGLS = 3-9 ]

Atrophy

Moderate

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 308

TRT#: 4

SEX: Male

DAY ON TEST: 555

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-308

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                           |                             |                      |
|--------------------------|---------------------------|-----------------------------|----------------------|
| * Adrenal Cortex         | * Adrenal Medulla         | * Blood Vessel              | * Bone               |
| * Bone Marrow            | * Brain                   | * Epididymis                | * Esophagus          |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic |
| * Larynx                 | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland      |
| * Nose                   | * Pancreas                | * Pituitary Gland           | * Preputial Gland    |
| * Salivary Glands        | * Seminal Vesicle         | * Skin                      | * Spleen             |
| * Stomach, Forestomach   | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland      |
| * Trachea                | * Urinary Bladder         |                             |                      |

MISSING

|                         |                           |
|-------------------------|---------------------------|
| * Lymph Node, Bronchial | * Lymph Node, Mediastinal |
|-------------------------|---------------------------|

AUTO PRECLUDES DIAG.

|                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

|                            |                           |               |
|----------------------------|---------------------------|---------------|
| * Heart                    | Cardiomyopathy            | Moderate      |
|                            | Mineralization            | Mild          |
| * Kidney                   | Mineralization            | Mild          |
|                            | Nephropathy               | Marked        |
| [ Nephropathy TGLS = 1-7 ] |                           |               |
| * Liver                    | Eosinophilic Focus        | Mild          |
|                            | Necrosis                  | Minimal       |
| * Lung                     | Inflammation              | Chronic, Mild |
| * Parathyroid Gland        | Hyperplasia               | Minimal       |
| * Prostate                 | Inflammation              | Moderate      |
| * Testes                   | Bilateral, Interstit Cell | Adenoma       |
| [ Adenoma TGLS = 2-9 ]     |                           |               |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Date Report Requested: 10/18/2014

Test Type: CHRONIC

Test Compound: Ethylbenzene

Time Report Requested: 23:45:33

Route: RESPIRATORY EXPOSURE WHOLE BODY

CAS Number: 100-41-4

First Dose M/F: NA / NA

Species/Strain: Rat/F 344/N

Lab: IIT

ANIMAL ID: 309

TRT#: 4

SEX: Male

DAY ON TEST: 547

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-309

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                           |                           |
|-----------------------------|--------------------------|---------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Bone Marrow             | * Brain                   |
| * Epididymis                | * Esophagus              | * Intestine Large, Colon  | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic      | * Larynx                  |
| * Liver                     | * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric  |
| * Nose                      | * Pancreas               | * Preputial Gland         | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                    | * Spleen                  |
| * Stomach, Forestomach      | * Thymus                 | * Thyroid Gland           | * Trachea                 |
| * Urinary Bladder           |                          |                           |                           |

AUTO PRECLUDES DIAG.

- |                          |                            |
|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

- |                            |                           |                           |             |
|----------------------------|---------------------------|---------------------------|-------------|
| * Adrenal Cortex           |                           | Vacuolization Cytoplasmic | Minimal     |
| * Adrenal Medulla          |                           | Pheochromocytoma Benign   |             |
| * Heart                    |                           | Cardiomyopathy            | Mild        |
| * Kidney                   | Renal Tubule              | Hyperplasia               | Mild        |
|                            | Transit Epithe            | Hyperplasia               | Mild        |
|                            |                           | Mineralization            | Mild        |
|                            |                           | Nephropathy               | Marked      |
| [ Nephropathy TGLS = 3-7 ] |                           |                           |             |
| * Lung                     |                           | Inflammation              | Acute, Mild |
| * Lymph Node, Bronchial    |                           | Hemorrhage                | Mild        |
| * Mammary Gland            |                           | Pigmentation              | Mild        |
| * Parathyroid Gland        |                           | Hyperplasia               | Mild        |
| [ Hyperplasia TGLS = 1-3 ] |                           |                           |             |
| * Pituitary Gland          | Pars Distalis             | Hyperplasia               | Mild        |
| * Stomach, Glandular       |                           | Mineralization            | Mild        |
| * Testes                   | Bilateral, Interstit Cell | Adenoma                   |             |
| [ Adenoma TGLS = 2-9 ]     |                           |                           |             |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 310

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-310

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Bone                    | * Bone Marrow               | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Lung                    | * Lymph Node, Bronchial     | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal  | * Mammary Gland           | * Nose                      | * Preputial Gland        |
| * Salivary Glands          | * Seminal Vesicle         | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

**MISSING**

|          |                     |
|----------|---------------------|
| * Larynx | * Parathyroid Gland |
|----------|---------------------|

**OBSERVATIONS**

|                          |                |  |              |
|--------------------------|----------------|--|--------------|
| * Adrenal Cortex         |                | Hypertrophy  | Mild         |
| * Adrenal Medulla        |                | Pheochromocytoma Benign  |              |
| * Islets, Pancreatic     |                | Adenoma  |              |
| * Kidney                 | Renal Tubule   | Adenoma  |              |
|                          | Renal Tubule   | Hyperplasia  | Mild         |
|                          | Transit Epithe | Hyperplasia  | Minimal      |
|                          |                | Nephropathy  | Moderate     |
|                          |                | [ Adenoma TGLS = 6-14 ]  |              |
|                          |                | [ Nephropathy TGLS = 5-7,14 ]  |              |
| * Larynx                 |                |  |              |
|                          |                | Note: The larynx is present, but the proper section for evaluation was not obtained. |              |
| * Liver                  |                | Degeneration   | Cystic, Mild |
|                          |                | Leukemia Mononuclear   |              |
| * Lymph Node, Mesenteric |                | Leukemia Mononuclear   |              |
| * Pancreas               | Acinus         | Atrophy  | Mild         |
| * Pituitary Gland        | Pars Distalis  | Hyperplasia  | Mild         |
| * Prostate               |                | Inflammation   | Mild         |
| * Skin                   |                | Keratoacanthoma  |              |
| * Spleen                 |                | Leukemia Mononuclear   |              |
|                          |                | [ Leukemia Mononuclear TGLS = 3-5;4-13 ]   |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 310

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 734

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-310

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 2,7-9 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 311

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 587

HISTO: 90-5201-311

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Nose                   |
| * Pancreas                 | * Prostate                | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Spleen                  | * Stomach, Glandular        | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

MISSING

|                         |          |
|-------------------------|----------|
| * Lymph Node, Bronchial | * Thymus |
|-------------------------|----------|

OBSERVATIONS

|  |                |                            |                   |
|--|----------------|----------------------------|-------------------|
| * Adrenal Medulla  |                | Pheochromocytoma Malignant |                   |
| [ Pheochromocytoma Malignant TGLS = 4-3 ]                      |                |                            |                   |
| * Bone Marrow  |                | Hyperplasia                | Moderate          |
| * Brain  |                |                            |                   |
| Note: The brain is markedly compressed by the pituitary tumor. |                |                            |                   |
| * Kidney   | Renal Tubule   | Carcinoma                  |                   |
|  | Transit Epithe | Hyperplasia                | Minimal           |
|  |                | Nephropathy                | Mild              |
| [ Carcinoma TGLS = 1,5-7 ]                                     |                |                            |                   |
| [ Nephropathy TGLS = 2-7 ]                                     |                |                            |                   |
| * Liver  |                | Degeneration               | Cystic, Mild      |
|  |                | Necrosis                   | Mild              |
| [ Necrosis TGLS = 7-5 ]  |                |                            |                   |
| Lymph Node   | Renal          | Hemorrhage                 | Minimal           |
|  | Renal          | Hyperplasia                | Plasma Cell, Mild |
|  | Renal          | Pigmentation               | Mild              |
| [ Hyperplasia TGLS = 11,12-13 ]                                |                |                            |                   |
| * Mammary Gland  |                | Galactocele                | Minimal           |
| Mesentery  | Fat            | Necrosis                   | Moderate          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 311 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 587   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-311 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                            |                |              |          |
|----------------------------|----------------|--------------|----------|
| [ Necrosis TGLS = 8-14 ]   |                |              |          |
| * Parathyroid Gland        |                | Hyperplasia  | Minimal  |
| [ Hyperplasia TGLS = 3-3 ] |                |              |          |
| * Pituitary Gland          | Pars Distalis  | Adenoma      |          |
| [ Adenoma TGLS = 9-1 ]     |                |              |          |
| * Preputial Gland          |                | Inflammation | Mild     |
| * Stomach, Forestomach     |                | Hyperplasia  | Mild     |
| * Testes                   | Bilateral      | Atrophy      | Moderate |
|                            | Interstit Cell | Hyperplasia  | Minimal  |
| [ Atrophy TGLS = 13-9 ]    |                |              |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 312

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 681

HISTO: 90-5201-312

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                           |                             |                          |
|--------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex         | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                  | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic     |
| * Larynx                 | * Lung                    | * Lymph Node, Mandibular    | * Mammary Gland          |
| * Nose                   | * Preputial Gland         | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                   | * Spleen                  | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland          | * Trachea                 | * Urinary Bladder           |                          |

MISSING

\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Small, Ileum                      \* Intestine Small, Jejunum

OBSERVATIONS

|                           |                            |                |              |
|---------------------------|----------------------------|----------------|--------------|
| * Bone Marrow             |                            | Hyperplasia    | Mild         |
| * Heart                   |                            | Cardiomyopathy | Mild         |
| * Kidney                  | Transit Epithe             | Hyperplasia    | Mild         |
|                           |                            | Nephropathy    | Marked       |
|                           | [ Nephropathy TGLS = 2-7 ] |                |              |
| * Liver                   |                            | Degeneration   | Cystic, Mild |
| * Lymph Node, Mediastinal |                            | Hemorrhage     | Mild         |
| * Lymph Node, Mesenteric  |                            | Hemorrhage     | Mild         |
| * Pancreas                | Acinus                     | Atrophy        | Mild         |
| * Parathyroid Gland       |                            | Hyperplasia    | Marked       |
|                           | [ Hyperplasia TGLS = 1-2 ] |                |              |
| * Pituitary Gland         | Pars Distalis              | Hyperplasia    | Mild         |
|                           | [ Hyperplasia TGLS = 6-1 ] |                |              |
| * Prostate                |                            | Inflammation   | Mild         |
| * Stomach, Forestomach    |                            | Hyperplasia    | Mild         |
| * Testes                  | Bilateral, Interstit Cell  | Adenoma        |              |
|                           |                            | Atrophy        | Moderate     |
|                           | [ Adenoma TGLS = 5-9 ]     |                |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 312

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 681

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-312

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Atrophy TGLS = 4-9 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 313

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 586

HISTO: 90-5201-313

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                      |                          |                           |
|-----------------------------|----------------------|--------------------------|---------------------------|
| * Blood Vessel              | * Bone               | * Brain                  | * Epididymis              |
| * Esophagus                 | * Heart              | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Islets, Pancreatic | * Lung                   | * Lymph Node, Mediastinal |
| * Mammary Gland             | * Nose               | * Parathyroid Gland      | * Preputial Gland         |
| * Prostate                  | * Salivary Glands    | * Seminal Vesicle        | * Skin                    |
| * Stomach, Forestomach      | * Stomach, Glandular | * Thyroid Gland          | * Trachea                 |
| * Urinary Bladder           |                      |                          |                           |

MISSING

|          |                         |          |
|----------|-------------------------|----------|
| * Larynx | * Lymph Node, Bronchial | * Thymus |
|----------|-------------------------|----------|

OBSERVATIONS

|                              |               |              |                       |
|------------------------------|---------------|--------------|-----------------------|
| * Adrenal Cortex             | Capsule       | Inflammation | Moderate              |
|                              |               | Necrosis     | Marked                |
| [ Inflammation TGLS = 10-3 ] |               |              |                       |
| * Adrenal Medulla            |               | Necrosis     | Marked                |
| * Bone Marrow                |               | Hyperplasia  | Marked                |
| * Intestine Large, Cecum     |               | Inflammation | Mild                  |
| [ Inflammation TGLS = 9-15 ] |               |              |                       |
| * Intestine Small, Ileum     |               | Inflammation | Moderate              |
| [ Inflammation TGLS = 5-14 ] |               |              |                       |
| * Intestine Small, Jejunum   |               | Inflammation | Marked                |
| [ Inflammation TGLS = 7-16 ] |               |              |                       |
| * Kidney                     |               | Necrosis     | Marked                |
| [ Necrosis TGLS = 11-7 ]     |               |              |                       |
| * Liver                      |               | Necrosis     | Mild                  |
| * Lymph Node, Mandibular     |               | Hyperplasia  | Plasma Cell, Moderate |
| * Lymph Node, Mesenteric     |               | Inflammation | Marked                |
| [ Inflammation TGLS = 8-13 ] |               |              |                       |
| * Pancreas                   |               | Inflammation | Marked                |
| [ Inflammation TGLS = 8-13 ] |               |              |                       |
| * Pituitary Gland            | Pars Distalis | Angiectasis  | Minimal               |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 313 | <b>TRT#:</b> 4       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 586   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-313 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                           |                                  |      |
|------------------------|---------------------------|----------------------------------|------|
| * Spleen               |                           | Hematopoietic Cell Proliferation | Mild |
| * Testes               | Bilateral, Interstit Cell | Adenoma                          |      |
| [ Adenoma TGLS = 3-9 ] |                           |                                  |      |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 314

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 590

HISTO: 90-5201-314

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Brain                    | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Bronchial  | * Lymph Node, Mesenteric   | * Mammary Gland           | * Preputial Gland           |
| * Salivary Glands        | * Seminal Vesicle          | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          |                           |                             |

OBSERVATIONS

|                                |                |                        |                          |
|--------------------------------|----------------|------------------------|--------------------------|
| * Adrenal Medulla              | Bilateral      | Hyperplasia            | Mild                     |
| * Blood Vessel                 | Aorta          | Mineralization         | Moderate                 |
| * Bone                         |                | Fibrous Osteodystrophy | Mild                     |
| * Bone Marrow                  |                | Hyperplasia            | Mild                     |
| * Heart                        |                | Cardiomyopathy         | Moderate                 |
| * Kidney                       |                | Mineralization         | Mild                     |
|                                |                | Nephropathy            | Marked                   |
| [ Nephropathy TGLS = 5-7 ]     |                |                        |                          |
| * Liver                        |                | Degeneration           | Cystic, Mild             |
| * Lung                         |                | Edema                  | Mild                     |
|                                |                | Hemorrhage             | Minimal                  |
|                                |                | Inflammation           | Chronic Active, Moderate |
| * Lymph Node, Mandibular       |                | Hyperplasia            | Plasma Cell, Mild        |
| * Lymph Node, Mediastinal      |                | Hemorrhage             | Mild                     |
| * Nose                         | Respirat Epith | Inflammation           | Mild                     |
| * Pancreas                     | Acinus         | Atrophy                | Mild                     |
| * Parathyroid Gland            |                | Hyperplasia            | Moderate                 |
| * Pituitary Gland              | Pars Distalis  | Adenoma                |                          |
| [ Adenoma TGLS = 6-1 ]         |                |                        |                          |
| * Prostate                     |                | Inflammation           | Mild                     |
| * Skin                         |                | Hyperkeratosis         | Mild                     |
|                                |                | Inflammation           | Marked                   |
| [ Hyperkeratosis TGLS = 1-13 ] |                |                        |                          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 314 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 590   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-314 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                |                           |                                  |      |
|--------------------------------|---------------------------|----------------------------------|------|
| [ Inflammation TGLS = 2-14.1 ] |                           |                                  |      |
| * Spleen                       |                           | Hematopoietic Cell Proliferation | Mild |
| * Stomach, Forestomach         |                           | Mineralization                   | Mild |
| * Stomach, Glandular           |                           | Mineralization                   | Mild |
| * Testes                       | Bilateral, Interstit Cell | Adenoma                          |      |
| [ Adenoma TGLS = 3,4-9 ]       |                           |                                  |      |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 315

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 538

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-315

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             | * Nose                   |
| * Parathyroid Gland        | * Prostate                | * Salivary Glands           | * Seminal Vesicle        |
| * Stomach, Glandular       | * Trachea                 | * Urinary Bladder           |                          |

**MISSING**

\* Larynx

**OBSERVATIONS**

|                           |  |                      |              |
|---------------------------|--|----------------------|--------------|
| * Bone Marrow             |  | Leukemia Mononuclear |              |
| * Heart                   |  | Cardiomyopathy       | Mild         |
|                           |  | Leukemia Mononuclear |              |
| * Kidney                  |  | Infarct              | Moderate     |
|                           |  | Leukemia Mononuclear |              |
|                           |  | Nephropathy          | Moderate     |
|                           | [ Infarct TGLS = 5-7 ]                   |                      |              |
|                           | [ Nephropathy TGLS = 4-7 ]               |                      |              |
| * Liver                   |  | Degeneration         | Cystic, Mild |
|                           |  | Leukemia Mononuclear |              |
|                           | [ Leukemia Mononuclear TGLS = 7-5 ]      |                      |              |
| * Lung                    |  | Leukemia Mononuclear |              |
| Lymph Node                | Renal                                    | Leukemia Mononuclear |              |
|                           | [ Leukemia Mononuclear TGLS = 13,14-14 ] |                      |              |
| * Lymph Node, Bronchial   |  | Leukemia Mononuclear |              |
| * Lymph Node, Mandibular  |  | Leukemia Mononuclear |              |
|                           | [ Leukemia Mononuclear TGLS = 12-2 ]     |                      |              |
| * Lymph Node, Mediastinal |  | Leukemia Mononuclear |              |
|                           | [ Leukemia Mononuclear TGLS = 2-5 ]      |                      |              |
| * Lymph Node, Mesenteric  |  | Leukemia Mononuclear |              |
|                           | [ Leukemia Mononuclear TGLS = 11-8 ]     |                      |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 315 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 538   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-315 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                |                      |          |
|---|----------------|----------------------|----------|
| * Pancreas<br>[ Leukemia Mononuclear TGLS = 8-2 ] |                | Leukemia Mononuclear |          |
| * Pituitary Gland<br>[ Adenoma TGLS = 10-1 ]      | Pars Distalis  | Adenoma              |          |
| * Preputial Gland                                 |                | Inflammation         | Moderate |
| * Skin  |                | Leukemia Mononuclear |          |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 9-5 ]   |                | Leukemia Mononuclear |          |
| * Stomach, Forestomach                            |                | Inflammation         | Mild     |
| * Testes  | Interstit Cell | Hyperplasia          | Minimal  |
| * Thymus  |                | Leukemia Mononuclear |          |
| * Thyroid Gland                                   |                | Leukemia Mononuclear |          |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 316

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 546

HISTO: 90-5201-316

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                           |                      |                         |
|--------------------------|---------------------------|----------------------|-------------------------|
| * Blood Vessel           | * Bone                    | * Brain              | * Esophagus             |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Islets, Pancreatic | * Lymph Node, Bronchial |
| * Mammary Gland          | * Parathyroid Gland       | * Pituitary Gland    | * Prostate              |
| * Seminal Vesicle        | * Urinary Bladder         |                      |                         |

OBSERVATIONS

|   |                |                           |              |
|---|----------------|---------------------------|--------------|
| * Adrenal Cortex                              |                | Vacuolization Cytoplasmic | Mild         |
| * Adrenal Medulla                             | Bilateral      | Pheochromocytoma Benign   |              |
| * Blood Vessel                                |                |                           |              |
| Note: Aorta is infiltrated by leukemia cells. |                |                           |              |
| Note: Aorta is infiltrated by leukemia cells. |                |                           |              |
| * Bone Marrow                                 |                | Leukemia Mononuclear      |              |
| * Epididymis                                  |                | Leukemia Mononuclear      |              |
| * Heart                                       |                | Leukemia Mononuclear      |              |
| * Intestine Large, Cecum                      |                | Leukemia Mononuclear      |              |
| * Intestine Small, Duodenum                   |                | Leukemia Mononuclear      |              |
| * Intestine Small, Ileum                      |                | Leukemia Mononuclear      |              |
| * Intestine Small, Jejunum                    |                | Leukemia Mononuclear      |              |
| * Kidney                                      | Transit Epithe | Hyperplasia               | Mild         |
|   |                | Leukemia Mononuclear      |              |
|   |                | Nephropathy               | Mild         |
| [ Leukemia Mononuclear TGLS = 14-7 ]          |                |                           |              |
| * Larynx                                      |                | Leukemia Mononuclear      |              |
| * Liver                                       |                | Degeneration              | Cystic, Mild |
|   |                | Leukemia Mononuclear      |              |
| * Lung  |                | Leukemia Mononuclear      |              |
| Lymph Node                                    | Lumbar         | Leukemia Mononuclear      |              |
|   | Pancreatic     | Leukemia Mononuclear      |              |
|   | Renal          | Leukemia Mononuclear      |              |
|   |                | Leukemia Mononuclear      |              |
| [ Leukemia Mononuclear TGLS = 10-13 ]         |                |                           |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 316

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 546

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-316

**ORGAN AND ACCOUNTABLE SITE STATUS**

|   |                           |                      |         |
|---|---------------------------|----------------------|---------|
| [ Leukemia Mononuclear TGLS = 11-16 ]     |                           |                      |         |
| [ Leukemia Mononuclear TGLS = 9-18 ]      |                           |                      |         |
| [ Leukemia Mononuclear TGLS = 4-15;5-17 ] |                           |                      |         |
| * Lymph Node, Mandibular                  |                           | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 6-2 ]       |                           |                      |         |
| * Lymph Node, Mediastinal                 |                           | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 7-5 ]       |                           |                      |         |
| * Lymph Node, Mesenteric                  |                           | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 15-8 ]      |                           |                      |         |
| * Nose                                    | Respirat Epith            | Hyperplasia          | Minimal |
|   |                           | Leukemia Mononuclear |         |
| * Pancreas                                |                           | Leukemia Mononuclear |         |
| * Preputial Gland                         | Bilateral                 | Adenoma              |         |
| [ Adenoma TGLS = 1,2-14 ]                 |                           |                      |         |
| * Salivary Glands                         |                           | Leukemia Mononuclear |         |
| * Skin                                    |                           | Leukemia Mononuclear |         |
| * Spleen                                  |                           | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 8-5 ]       |                           |                      |         |
| * Stomach, Forestomach                    |                           | Leukemia Mononuclear |         |
| * Stomach, Glandular                      |                           | Leukemia Mononuclear |         |
| * Testes                                  | Bilateral, Interstit Cell | Adenoma              |         |
|   |                           | Leukemia Mononuclear |         |
| [ Adenoma TGLS = 12,13-9 ]                |                           |                      |         |
| * Thymus                                  |                           | Leukemia Mononuclear |         |
| * Thyroid Gland                           |                           | Leukemia Mononuclear |         |
| * Trachea                                 |                           | Leukemia Mononuclear |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 317

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 572

HISTO: 90-5201-317

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                          |                           |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Cortex            | * Bone                   | * Bone Marrow            | * Brain                   |
| * Epididymis                | * Esophagus              | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Islets, Pancreatic     | * Lung                   | * Lymph Node, Mandibular  |
| * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Mammary Gland          | * Pituitary Gland         |
| * Preputial Gland           | * Salivary Glands        | * Seminal Vesicle        | * Skin                    |
| * Spleen                    | * Stomach, Forestomach   | * Thymus                 | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                          |                           |

MISSING

|                   |                         |
|-------------------|-------------------------|
| * Adrenal Medulla | * Lymph Node, Bronchial |
|-------------------|-------------------------|

AUTO PRECLUDES DIAG.

|                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

|                            |                           |                |                 |
|----------------------------|---------------------------|----------------|-----------------|
| * Blood Vessel             | Aorta                     | Mineralization | Moderate        |
| * Heart                    |                           | Cardiomyopathy | Moderate        |
| * Kidney                   | Transit Epith             | Hyperplasia    | Mild            |
|                            |                           | Mineralization | Mild            |
|                            |                           | Nephropathy    | Marked          |
| [ Nephropathy TGLS = 2-7 ] |                           |                |                 |
| * Larynx                   | Respirat Epith            | Metaplasia     | Squamous, Mild  |
| * Liver                    |                           | Degeneration   | Cystic, Minimal |
| * Nose                     | Respirat Epith            | Hyperplasia    | Minimal         |
|                            | Respirat Epith            | Inflammation   | Minimal         |
| * Pancreas                 | Acinus                    | Atrophy        | Mild            |
| * Parathyroid Gland        |                           | Hyperplasia    | Mild            |
| [ Hyperplasia TGLS = 5-3 ] |                           |                |                 |
| * Prostate                 |                           | Inflammation   | Mild            |
| * Stomach, Glandular       |                           | Mineralization | Mild            |
| * Testes                   | Bilateral, Interstit Cell | Adenoma        |                 |
| [ Adenoma TGLS = 1-9 ]     |                           |                |                 |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 317

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 572

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-317

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 318

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 616

HISTO: 90-5201-318

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Mandibular   |
| * Mammary Gland           | * Nose                      | * Preputial Gland        | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Spleen                 | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |                            |

OBSERVATIONS

|  |                |                         |              |
|--|----------------|-------------------------|--------------|
| * Adrenal Medulla                      |                | Pheochromocytoma Benign |              |
| [ Pheochromocytoma Benign TGLS = 7-3 ] |                |                         |              |
| * Bone Marrow                          |                | Myelofibrosis           | Mild         |
| * Heart                                |                | Cardiomyopathy          | Mild         |
| * Kidney                               | Renal Tubule   | Adenoma                 |              |
|  | Transit Epithe | Hyperplasia             | Mild         |
|  |                | Nephropathy             | Marked       |
| [ Nephropathy TGLS = 3-7 ]             |                |                         |              |
| * Liver                                |                | Degeneration            | Cystic, Mild |
| [ Degeneration TGLS = 2-5 ]            |                |                         |              |
| Lymph Node                             | Renal          | Hemorrhage              | Moderate     |
| [ Hemorrhage TGLS = 6-13 ]             |                |                         |              |
| * Lymph Node, Bronchial                |                | Pigmentation            | Minimal      |
| * Lymph Node, Mediastinal              |                | Hemorrhage              | Marked       |
| [ Hemorrhage TGLS = 5-5 ]              |                |                         |              |
| * Lymph Node, Mesenteric               |                | Hemorrhage              | Mild         |
| * Pancreas                             | Acinus         | Atrophy                 | Mild         |
| * Parathyroid Gland                    |                | Hyperplasia             | Moderate     |
| [ Hyperplasia TGLS = 4-3 ]             |                |                         |              |
| * Pituitary Gland                      | Pars Distalis  | Hyperplasia             | Mild         |
| * Prostate                             |                | Inflammation            | Marked       |
| * Stomach, Forestomach                 |                | Ulcer                   | Moderate     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 318 | <b>TRT#:</b> 4       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 616   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-318 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                      |                           |                |      |
|----------------------|---------------------------|----------------|------|
| * Stomach, Glandular |                           | Mineralization | Mild |
| * Testes             | Bilateral, Interstit Cell | Adenoma        |      |

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 319

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 587

HISTO: 90-5201-319

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Blood Vessel             | * Brain                   | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      |
| * Salivary Glands        | * Seminal Vesicle          | * Skin                    | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|  |                                |  |  |
|--|--------------------------------|--|--|
| * Adrenal Medulla                      |                                | Hyperplasia<br>Pheochromocytoma Benign                                   | Minimal                                    |
| [ Pheochromocytoma Benign TGLS = 2-3 ] |                                |  |  |
| * Bone                                 |                                | Fibrous Osteodystrophy   | Mild                                       |
| * Bone Marrow                          |                                | Myelofibrosis  | Mild                                       |
| * Epididymis                           |                                | Mineralization   | Mild                                       |
| * Heart                                |                                | Mineralization   | Moderate                                   |
| * Kidney                               | Renal Tubule<br>Transit Epithe | Adenoma<br>Hyperplasia<br>Nephropathy                                    | Mild<br>Marked                             |
| [ Nephropathy TGLS = 1-7 ]             |                                |  |  |
| * Liver                                |                                | Basophilic Focus<br>Degeneration<br>Eosinophilic Focus<br>Mineralization | Minimal<br>Cystic, Mild<br>Minimal<br>Mild |
| * Lymph Node, Mediastinal              |                                | Hemorrhage   | Moderate                                   |
| * Mammary Gland                        |                                | Galactocele  | Minimal                                    |
| * Pancreas                             | Acinus                         | Atrophy  | Mild                                       |
| * Parathyroid Gland                    |                                | Hyperplasia  | Marked                                     |
| [ Hyperplasia TGLS = 3-3 ]             |                                |  |  |
| * Pituitary Gland                      | Pars Distalis                  | Angiectasis  | Marked                                     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:33

**First Dose M/F:** NA / NA

**Lab:** IIT

**ANIMAL ID:** 319

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 587

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-319

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                                   |                           |                    |          |
|-----------------------------------|---------------------------|--------------------|----------|
|                                   | Pars Distalis             | Hyperplasia        | Mild     |
| [ Angiectasis TGLS = 7-1 ]        |                           |                    |          |
| * Preputial Gland                 |                           | Inflammation       | Mild     |
| * Prostate                        |                           | Inflammation       | Mild     |
| * Spleen                          |                           | Depletion Cellular | Mild     |
| [ Depletion Cellular TGLS = 4-5 ] |                           |                    |          |
| * Stomach, Forestomach            |                           | Ulcer              | Marked   |
| * Stomach, Glandular              |                           | Mineralization     | Moderate |
| * Testes                          | Bilateral, Interstit Cell | Adenoma            |          |
|                                   |                           | Atrophy            | Minimal  |
| [ Adenoma TGLS = 5-9 ]            |                           |                    |          |
| [ Atrophy TGLS = 6-9 ]            |                           |                    |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 320

TRT#: 4

SEX: Male

DAY ON TEST: 651

DOSE: 750 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-320

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Epididymis               |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Larynx                  | * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mediastinal  |
| * Mammary Gland           | * Nose                      | * Preputial Gland        | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Spleen                 | * Stomach, Glandular       |
| * Thymus                  | * Thyroid Gland             | * Trachea                | * Urinary Bladder          |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|  |                |                           |              |
|--|----------------|---------------------------|--------------|
| * Adrenal Cortex                         |                | Vacuolization Cytoplasmic | Moderate     |
| [ Vacuolization Cytoplasmic TGLS = 3-3 ] |                |                           |              |
| * Adrenal Medulla                        |                | Hyperplasia               | Minimal      |
| * Bone Marrow                            |                | Hyperplasia               | Mild         |
| * Islets, Pancreatic                     |                | Adenoma                   |              |
| * Kidney                                 | Renal Tubule   | Carcinoma                 |              |
|  | Transit Epithe | Hyperplasia               | Mild         |
|  |                | Nephropathy               | Marked       |
| [ Carcinoma TGLS = 6-13 ]                |                |                           |              |
| * Liver                                  |                | Degeneration              | Cystic, Mild |
| Lymph Node                               | Renal          | Hemorrhage                | Marked       |
| [ Hemorrhage TGLS = 5-14 ]               |                |                           |              |
| * Lymph Node, Mesenteric                 |                | Hemorrhage                | Mild         |
| * Pancreas                               | Acinus         | Atrophy                   | Minimal      |
| * Parathyroid Gland                      |                | Hyperplasia               | Mild         |
| [ Hyperplasia TGLS = 1-3 ]               |                |                           |              |
| * Pituitary Gland                        | Pars Distalis  | Adenoma                   |              |
| [ Adenoma TGLS = 7-1 ]                   |                |                           |              |
| * Prostate                               |                | Inflammation              | Moderate     |
| * Stomach, Forestomach                   |                | Hyperplasia               | Moderate     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 320 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 651   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-320 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                |             |          |
|------------------------|----------------|-------------|----------|
| [ Ulcer TGLS = 8-15 ]  |                | Ulcer       | Marked   |
| * Testes               | Interstit Cell | Adenoma     |          |
|                        | Bilateral      | Atrophy     | Moderate |
|                        | Interstit Cell | Hyperplasia | Minimal  |
| [ Atrophy TGLS = 4-9 ] |                |             |          |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 321

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 563

HISTO: 90-5201-321

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Brain                   | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             |
| * Nose                   | * Parathyroid Gland        | * Salivary Glands         | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |                             |

MISSING

- \* Larynx

OBSERVATIONS

- |                                       |        |                      |                 |
|---------------------------------------|--------|----------------------|-----------------|
| * Adrenal Cortex                      |        | Leukemia Mononuclear |                 |
| * Adrenal Medulla                     |        | Leukemia Mononuclear |                 |
| * Bone Marrow                         |        | Leukemia Mononuclear |                 |
| * Epididymis                          |        | Leukemia Mononuclear |                 |
| * Heart                               |        | Leukemia Mononuclear |                 |
| * Kidney                              |        | Leukemia Mononuclear |                 |
|                                       |        | Nephropathy          | Mild            |
| * Liver                               |        | Degeneration         | Cystic, Minimal |
|                                       |        | Leukemia Mononuclear |                 |
| [ Leukemia Mononuclear TGLS = 5-5 ]   |        |                      |                 |
| * Lung                                |        | Leukemia Mononuclear |                 |
| [ Leukemia Mononuclear TGLS = 3-6 ]   |        |                      |                 |
| Lymph Node                            | Lumbar | Leukemia Mononuclear |                 |
|                                       | Renal  | Leukemia Mononuclear |                 |
|                                       |        | Leukemia Mononuclear |                 |
| [ Leukemia Mononuclear TGLS = 1-13 ]  |        |                      |                 |
| [ Leukemia Mononuclear TGLS = 10-14 ] |        |                      |                 |
| [ Leukemia Mononuclear TGLS = 4-15 ]  |        |                      |                 |
| * Lymph Node, Bronchial               |        | Leukemia Mononuclear |                 |
| * Lymph Node, Mandibular              |        | Leukemia Mononuclear |                 |
| * Lymph Node, Mediastinal             |        | Leukemia Mononuclear |                 |
| [ Leukemia Mononuclear TGLS = 2-5 ]   |        |                      |                 |

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 321

TRT#: 4

SEX: Male

DAY ON TEST: 563

DOSE: 750 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-321

ORGAN AND ACCOUNTABLE SITE STATUS

|  |                           |                      |          |
|--|---------------------------|----------------------|----------|
| * Lymph Node, Mesenteric                                   |                           | Leukemia Mononuclear |          |
| * Mammary Gland  |                           |                      |          |
| Note: The mammary tissue is infiltrated by leukemia cells. |                           |                      |          |
| * Pancreas   | Acinus                    | Atrophy              | Minimal  |
| * Pituitary Gland  | Pars Distalis             | Adenoma              |          |
|  | Pars Distalis             | Hyperplasia          | Moderate |
|  |                           | Leukemia Mononuclear |          |
| * Preputial Gland  |                           | Leukemia Mononuclear |          |
| * Prostate   |                           | Leukemia Mononuclear |          |
| * Seminal Vesicle  |                           | Leukemia Mononuclear |          |
| * Skin   |                           | Leukemia Mononuclear |          |
| * Spleen   |                           | Leukemia Mononuclear |          |
|  |                           | Necrosis             | Marked   |
| [ Leukemia Mononuclear TGLS = 6-5 ]                        |                           |                      |          |
| [ Necrosis TGLS = 6-5 ]                                    |                           |                      |          |
| * Stomach, Forestomach                                     |                           | Leukemia Mononuclear |          |
|  |                           | Ulcer                | Moderate |
| [ Leukemia Mononuclear TGLS = 11-4 ]                       |                           |                      |          |
| [ Ulcer TGLS = 11-4 ]                                      |                           |                      |          |
| * Stomach, Glandular                                       |                           | Leukemia Mononuclear |          |
|  |                           | Ulcer                | Moderate |
| * Testes   | Bilateral, Interstit Cell | Adenoma              |          |
| [ Adenoma TGLS = 7,8-9 ]                                   |                           |                      |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 322

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 652

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-322

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Pancreas                 |
| * Preputial Gland         | * Salivary Glands           | * Seminal Vesicle        | * Skin                     |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           |                          |                            |

**MISSING**

|          |                         |
|----------|-------------------------|
| * Larynx | * Lymph Node, Bronchial |
|----------|-------------------------|

**OBSERVATIONS**

|                          |   |                |                   |
|--------------------------|---|----------------|-------------------|
| * Adrenal Medulla        | Bilateral   | Hyperplasia    | Mild              |
| * Bone Marrow            |   | Atrophy        | Moderate          |
|                          |   | Hemorrhage     | Mild              |
| * Heart                  |   | Cardiomyopathy | Mild              |
| * Kidney                 | Renal Tubule  | Hyperplasia    | Minimal           |
|                          |   | Nephropathy    | Moderate          |
|                          | [ Nephropathy TGLS = 3-7 ]  |                |                   |
| * Larynx                 |   |                |                   |
|                          | Note: The larynx is present, but the correct section for evaluation was not obtained. |                |                   |
| * Lung                   |   | Congestion     | Mild              |
|                          |   | Edema          | Minimal           |
|                          |   | Inflammation   | Chronic, Minimal  |
| * Lymph Node, Mandibular |   | Hyperplasia    | Plasma Cell, Mild |
| * Mammary Gland          |   | Galactocele    | Minimal           |
| * Nose                   |   | Inflammation   | Moderate          |
|                          |   | Necrosis       | Moderate          |
| * Parathyroid Gland      |   | Hyperplasia    | Mild              |
|                          | [ Hyperplasia TGLS = 1-3 ]  |                |                   |
| * Pituitary Gland        | Pars Distalis   | Adenoma        |                   |
|                          | [ Adenoma TGLS = 4-1 ]  |                |                   |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:33

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 322

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 652

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-322

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                |                    |          |
|------------------------|----------------|--------------------|----------|
| * Prostate             |                | Inflammation       | Marked   |
| * Spleen               |                | Depletion Cellular | Moderate |
| * Testes               | Interstit Cell | Adenoma            |          |
|                        | Interstit Cell | Hyperplasia        | Minimal  |
| [ Adenoma TGLS = 2-9 ] |                |                    |          |

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 323

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 680

HISTO: 90-5201-323

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Pancreas               |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Skin                   |
| * Stomach, Forestomach     | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                            |                |                           |              |
|----------------------------|----------------|---------------------------|--------------|
| * Adrenal Cortex           |                | Vacuolization Cytoplasmic | Mild         |
| * Adrenal Medulla          |                | Hyperplasia               | Minimal      |
| * Blood Vessel             | Aorta          | Mineralization            | Moderate     |
| * Bone                     |                | Fibrous Osteodystrophy    | Mild         |
| * Bone Marrow              |                | Hyperplasia               | Mild         |
| * Heart                    |                | Cardiomyopathy            | Moderate     |
| * Islets, Pancreatic       |                | Adenoma                   |              |
| * Kidney                   |                | Cyst                      | Moderate     |
|                            | Renal Tubule   | Hyperplasia               | Mild         |
|                            | Transit Epithe | Hyperplasia               | Mild         |
|                            |                | Nephropathy               | Marked       |
| [ Nephropathy TGLS = 2-7 ] |                |                           |              |
| * Larynx                   | Respirat Epith | Hyperplasia               | Mild         |
| * Liver                    |                | Degeneration              | Cystic, Mild |
|                            |                | Eosinophilic Focus        | Mild         |
|                            |                | Necrosis                  | Minimal      |
| * Lung                     |                | Hemorrhage                | Mild         |
| * Lymph Node, Mediastinal  |                | Hemorrhage                | Mild         |
|                            |                | Pigmentation              | Minimal      |
| * Mammary Gland            |                | Galactoceles              | Moderate     |
| * Nose                     |                | Inflammation              | Minimal      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 323 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 680   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-323 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                           |                |          |
|---|---------------------------|----------------|----------|
| * Parathyroid Gland<br>[ Hyperplasia TGLS = 1-3 ] |                           | Hyperplasia    | Moderate |
| * Pituitary Gland                                 | Pars Distalis             | Adenoma        |          |
| * Preputial Gland                                 |                           | Inflammation   | Mild     |
| * Spleen  |                           | Necrosis       | Mild     |
| * Stomach, Glandular                              |                           | Mineralization | Mild     |
| * Testes  | Bilateral, Interstit Cell | Adenoma        |          |
|   |                           | Atrophy        | Mild     |
| [ Atrophy TGLS = 4-9 ]                            |                           |                |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 324

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 584

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-324

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                             |                            |                          |
|--------------------------|-----------------------------|----------------------------|--------------------------|
| * Adrenal Cortex         | * Brain                     | * Epididymis               | * Esophagus              |
| * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic     |
| * Larynx                 | * Lymph Node, Mandibular    | * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric |
| * Nose                   | * Pancreas                  | * Preputial Gland          | * Prostate               |
| * Salivary Glands        | * Seminal Vesicle           | * Skin                     | * Spleen                 |
| * Stomach, Forestomach   | * Thymus                    | * Thyroid Gland            | * Urinary Bladder        |

**MISSING**

|                         |                   |
|-------------------------|-------------------|
| * Lymph Node, Bronchial | * Pituitary Gland |
|-------------------------|-------------------|

**AUTO PRECLUDES DIAG.**

|                          |                           |                          |
|--------------------------|---------------------------|--------------------------|
| * Intestine Large, Cecum | * Intestine Large, Rectum | * Intestine Small, Ileum |
|--------------------------|---------------------------|--------------------------|

**OBSERVATIONS**

|                      |                             |                        |                         |
|----------------------|-----------------------------|------------------------|-------------------------|
| * Adrenal Medulla    | Bilateral                   | Hyperplasia            | Mild                    |
| * Blood Vessel       | Aorta                       | Mineralization         | Moderate                |
| * Bone               |                             | Fibrous Osteodystrophy | Moderate                |
| * Bone Marrow        |                             | Hyperplasia            | Mild                    |
| * Heart              |                             | Cardiomyopathy         | Mild                    |
|                      |                             | Mineralization         | Mild                    |
| * Kidney             |                             | Cyst                   | Moderate                |
|                      | Transit Epithe              | Hyperplasia            | Mild                    |
|                      |                             | Mineralization         | Mild                    |
|                      |                             | Nephropathy            | Marked                  |
|                      | [ Nephropathy TGLS = 2-7 ]  |                        |                         |
| * Liver              |                             | Degeneration           | Cystic, Minimal         |
| * Lung               |                             | Inflammation           | Chronic Active, Minimal |
| * Mammary Gland      |                             | Mineralization         | Mild                    |
| * Parathyroid Gland  |                             | Hyperplasia            | Marked                  |
|                      | [ Hyperplasia TGLS = 1-13 ] |                        |                         |
| * Stomach, Glandular |                             | Mineralization         | Marked                  |
| * Testes             | Interstit Cell              | Adenoma                |                         |
|                      |                             | Atrophy                | Marked                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:33  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 324 | <b>TRT#:</b> 4       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 584   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-324 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                |        |
|------------------------|----------------|--------|
| [ Adenoma TGLS = 4-9 ] | Mineralization | Mild   |
| [ Atrophy TGLS = 5-9 ] |                |        |
| * Trachea              | Mineralization | Marked |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 325

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 587

HISTO: 90-5201-325

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                           |                          |                            |
|--------------------------|---------------------------|--------------------------|----------------------------|
| * Brain                  | * Epididymis              | * Esophagus              | * Heart                    |
| * Intestine Large, Cecum | * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Prostate                | * Salivary Glands        | * Seminal Vesicle          |
| * Thyroid Gland          | * Trachea                 | * Urinary Bladder        |                            |

MISSING

\* Larynx

OBSERVATIONS

|                             |                                      |   |                               |
|-----------------------------|--------------------------------------|---|-------------------------------|
| * Adrenal Cortex            |                                      | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Minimal                       |
| * Adrenal Medulla           |                                      | Hyperplasia                                       | Mild                          |
| * Blood Vessel              | Aorta                                | Leukemia Mononuclear<br>Mineralization            | Moderate                      |
| * Bone                      |                                      | Fibrous Osteodystrophy                            | Moderate                      |
| * Bone Marrow               |                                      | Leukemia Mononuclear                              |                               |
| * Intestine Large, Colon    |                                      | Leukemia Mononuclear                              |                               |
| * Intestine Small, Duodenum |                                      | Leukemia Mononuclear                              |                               |
| * Kidney                    | Transit Epithe                       | Hyperplasia<br>Mineralization<br>Nephropathy      | Minimal<br>Moderate<br>Marked |
|                             | [ Nephropathy TGLS = 6-7 ]           |   |                               |
| * Liver                     | Bile Duct                            | Degeneration<br>Hyperplasia                       | Cystic, Minimal<br>Mild       |
| * Lung                      |                                      | Leukemia Mononuclear                              |                               |
| Lymph Node                  | Lumbar<br>Renal                      | Leukemia Mononuclear<br>Leukemia Mononuclear      |                               |
|                             | [ Leukemia Mononuclear TGLS = 8-14 ] |   |                               |
|                             | [ Leukemia Mononuclear TGLS = 7-15 ] |   |                               |
| * Lymph Node, Bronchial     |                                      | Leukemia Mononuclear                              |                               |
| * Lymph Node, Mandibular    |                                      | Leukemia Mononuclear                              |                               |

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 325

TRT#: 4

SEX: Male

DAY ON TEST: 587

DOSE: 750 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-325

ORGAN AND ACCOUNTABLE SITE STATUS

|                                     |                           |                      |          |
|-------------------------------------|---------------------------|----------------------|----------|
| * Lymph Node, Mediastinal           |                           | Leukemia Mononuclear |          |
| * Lymph Node, Mesenteric            |                           | Leukemia Mononuclear |          |
| * Mammary Gland                     |                           | Pigmentation         | Moderate |
| * Nose                              |                           | Leukemia Mononuclear |          |
| * Pancreas                          |                           | Leukemia Mononuclear |          |
| * Parathyroid Gland                 |                           | Hyperplasia          | Mild     |
| [ Hyperplasia TGLS = 1-3 ]          |                           |                      |          |
| * Pituitary Gland                   | Pars Distalis             | Cyst                 | Mild     |
|                                     | Pars Distalis             | Hyperplasia          | Mild     |
|                                     |                           | Leukemia Mononuclear |          |
| * Preputial Gland                   |                           | Inflammation         | Marked   |
| * Skin                              |                           | Leukemia Mononuclear |          |
| * Spleen                            |                           | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-5 ] |                           |                      |          |
| * Stomach, Forestomach              |                           | Leukemia Mononuclear |          |
| * Stomach, Glandular                |                           | Leukemia Mononuclear |          |
|                                     |                           | Mineralization       | Mild     |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |          |
|                                     | Bilateral                 | Atrophy              | Mild     |
| [ Adenoma TGLS = 5-9 ]              |                           |                      |          |
| [ Atrophy TGLS = 4-9 ]              |                           |                      |          |
| * Thymus                            |                           | Leukemia Mononuclear |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 326

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 569

HISTO: 90-5201-326

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                 |
|---------------------------|-----------------------------|--------------------------|-----------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone          |
| * Bone Marrow             | * Brain                     | * Epididymis             | * Esophagus     |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic     | * Lung          |
| * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose                    | * Pancreas                  | * Preputial Gland        | * Prostate      |
| * Salivary Glands         | * Seminal Vesicle           | * Skin                   | * Spleen        |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea       |
| * Urinary Bladder         |                             |                          |                 |

MISSING

|          |                         |                   |
|----------|-------------------------|-------------------|
| * Larynx | * Lymph Node, Bronchial | * Pituitary Gland |
|----------|-------------------------|-------------------|

AUTO PRECLUDES DIAG.

|                          |                          |                          |                            |
|--------------------------|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

|                        |                            |                |                 |
|------------------------|----------------------------|----------------|-----------------|
| * Heart                |                            | Cardiomyopathy | Moderate        |
| * Kidney               | Transit Epithe             | Hyperplasia    | Mild            |
|                        |                            | Nephropathy    | Marked          |
|                        | [ Nephropathy TGLS = 2-7 ] |                |                 |
| * Liver                |                            | Degeneration   | Cystic, Minimal |
|                        |                            | Necrosis       | Mild            |
|                        |                            | Hemorrhage     | Mild            |
|                        | Lymph Node                 |                |                 |
|                        | [ Hemorrhage TGLS = 5-13 ] |                |                 |
| * Parathyroid Gland    | Renal                      | Hyperplasia    | Moderate        |
|                        |                            |                |                 |
|                        |                            | Hyperplasia    | Mild            |
| * Stomach, Forestomach |                            | Ulcer          | Mild            |
|                        |                            | Adenoma        |                 |
| * Testes               | Bilateral, Interstit Cell  |                |                 |
|                        | [ Adenoma TGLS = 4-9 ]     |                |                 |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 327

TRT#: 4

SEX: Male

DAY ON TEST: 483

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-327

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                           |                          |
|---------------------------|-----------------------------|---------------------------|--------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Bone                    | * Bone Marrow            |
| * Brain                   | * Epididymis                | * Esophagus               | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic      | * Larynx                 |
| * Liver                   | * Lymph Node, Mandibular    | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric |
| * Mammary Gland           | * Nose                      | * Preputial Gland         | * Salivary Glands        |
| * Seminal Vesicle         | * Skin                      | * Thyroid Gland           | * Trachea                |

MISSING

|                         |                   |
|-------------------------|-------------------|
| * Lymph Node, Bronchial | * Pituitary Gland |
|-------------------------|-------------------|

AUTO PRECLUDES DIAG.

|                          |                          |                            |                   |
|--------------------------|--------------------------|----------------------------|-------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Urinary Bladder |
|--------------------------|--------------------------|----------------------------|-------------------|

OBSERVATIONS

|                     |                            |                |                      |
|---------------------|----------------------------|----------------|----------------------|
| * Blood Vessel      |                            | Mineralization | Moderate             |
| * Heart             |                            | Cardiomyopathy | Moderate             |
|                     |                            | Mineralization | Mild                 |
| * Kidney            |                            | Cyst           | Mild                 |
|                     | Transit Epithe             | Hyperplasia    | Mild                 |
|                     |                            | Mineralization | Mild                 |
|                     |                            | Nephropathy    | Marked               |
|                     | [ Nephropathy TGLS = 3-7 ] |                |                      |
| * Lung              |                            | Congestion     | Moderate             |
|                     |                            | Edema          | Moderate             |
|                     |                            | Inflammation   | Chronic Active, Mild |
|                     |                            | Mineralization | Minimal              |
|                     | [ Congestion TGLS = 1-6 ]  |                |                      |
| * Pancreas          | Acinus                     | Atrophy        | Mild                 |
| * Parathyroid Gland |                            | Hyperplasia    | Moderate             |
|                     | [ Hyperplasia TGLS = 4-3 ] |                |                      |
| * Prostate          |                            | Inflammation   | Mild                 |
| * Spleen            |                            | Atrophy        | Moderate             |
|                     | [ Atrophy TGLS = 2-5 ]     |                |                      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:33

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 327

**TRT#:** 4

**DOSE:** 750 PPM

**SEX:** Male

**DISP:** Natural Death

**DAY ON TEST:** 483

**HISTO:** 90-5201-327

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Stomach, Forestomach

Mineralization

Moderate

\* Stomach, Glandular

Mineralization

Mild

\* Testes

Interstit Cell

Adenoma

Interstit Cell

Hyperplasia

Minimal

[ Adenoma TGLS = 5-9 ]

\* Thymus

Cyst

Mild

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 328

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 661

HISTO: 90-5201-328

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                          |                           |                             |
|---------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla        | * Blood Vessel            | * Bone                      |
| * Bone Marrow             | * Brain                  | * Epididymis              | * Esophagus                 |
| * Intestine Large, Cecum  | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum  | * Islets, Pancreatic     | * Larynx                  | * Lymph Node, Mandibular    |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric | * Mammary Gland           | * Nose                      |
| * Pancreas                | * Pituitary Gland        | * Preputial Gland         | * Prostate                  |
| * Salivary Glands         | * Seminal Vesicle        | * Skin                    | * Spleen                    |
| * Stomach, Forestomach    | * Stomach, Glandular     | * Thymus                  | * Trachea                   |
| * Urinary Bladder         |                          |                           |                             |

MISSING

\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Small, Jejunum

OBSERVATIONS

|                     |                            |                |                  |
|---------------------|----------------------------|----------------|------------------|
| * Heart             |                            | Cardiomyopathy | Minimal          |
| * Kidney            | Renal Tubule               | Hyperplasia    | Minimal          |
|                     | Transit Epithe             | Hyperplasia    | Mild             |
|                     |                            | Nephropathy    | Marked           |
|                     | [ Nephropathy TGLS = 4-7 ] |                |                  |
| * Liver             |                            | Degeneration   | Cystic, Moderate |
| * Lung              |                            | Congestion     | Moderate         |
|                     |                            | Edema          | Mild             |
| * Parathyroid Gland |                            | Hyperplasia    | Moderate         |
|                     | [ Hyperplasia TGLS = 2-3 ] |                |                  |
| * Testes            | Bilateral, Interstit Cell  | Adenoma        |                  |
|                     | [ Adenoma TGLS = 3-9 ]     |                |                  |
| * Thyroid Gland     | Follicular Cel             | Carcinoma      |                  |
|                     | [ Carcinoma TGLS = 1-3 ]   |                |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 329

TRT#: 4

SEX: Male

DAY ON TEST: 393

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-329

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                      |                 |                     |                   |
|----------------------|-----------------|---------------------|-------------------|
| * Blood Vessel       | * Bone          | * Epididymis        | * Esophagus       |
| * Islets, Pancreatic | * Mammary Gland | * Parathyroid Gland | * Salivary Glands |
| * Seminal Vesicle    | * Skin          | * Trachea           |                   |

AUTO PRECLUDES DIAG.

- |                          |                          |                          |                            |
|--------------------------|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

- |                                     |                |                      |      |
|-------------------------------------|----------------|----------------------|------|
| * Adrenal Cortex                    |                | Leukemia Mononuclear |      |
| * Adrenal Medulla                   |                | Leukemia Mononuclear |      |
| * Bone Marrow                       |                | Leukemia Mononuclear |      |
| * Brain                             |                | Leukemia Mononuclear |      |
| * Heart                             |                | Leukemia Mononuclear |      |
| * Intestine Large, Rectum           |                | Leukemia Mononuclear |      |
| * Intestine Small, Duodenum         |                | Leukemia Mononuclear |      |
| * Kidney                            |                | Leukemia Mononuclear |      |
| * Larynx                            |                | Leukemia Mononuclear |      |
| * Liver                             |                | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 2-5 ] |                |                      |      |
| * Lung                              |                | Leukemia Mononuclear |      |
| * Lymph Node, Bronchial             |                | Leukemia Mononuclear |      |
| * Lymph Node, Mandibular            |                | Leukemia Mononuclear |      |
| * Lymph Node, Mediastinal           |                | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 5-5 ] |                |                      |      |
| * Lymph Node, Mesenteric            |                | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 4-8 ] |                |                      |      |
| * Nose                              | Respirat Epith | Hyperplasia          | Mild |
|                                     |                | Leukemia Mononuclear |      |
| * Pancreas                          |                | Leukemia Mononuclear |      |
| * Pituitary Gland                   |                | Leukemia Mononuclear |      |
| * Preputial Gland                   |                | Leukemia Mononuclear |      |
| * Prostate                          |                | Leukemia Mononuclear |      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:33

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 329

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 393

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-329

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|  |                |                      |         |
|--|----------------|----------------------|---------|
| * Spleen<br>[ Leukemia Mononuclear TGLS = 1-5 ]          |                | Leukemia Mononuclear |         |
| * Stomach, Forestomach                                   |                | Leukemia Mononuclear |         |
| * Stomach, Glandular                                     |                | Leukemia Mononuclear |         |
| * Testes   | Interstit Cell | Hyperplasia          | Minimal |
|  |                | Leukemia Mononuclear |         |
| * Thymus   |                | Leukemia Mononuclear |         |
| * Thyroid Gland  |                | Leukemia Mononuclear |         |
| * Urinary Bladder<br>[ Leukemia Mononuclear TGLS = 3-7 ] |                | Leukemia Mononuclear |         |

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**PRIMARY CAUSE OF DEATH** -

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Animal Note: The aorta, parathyroid, and mammary gland are also infiltrated with leukemic cel ls.

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:33

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 330

TRT#: 4

SEX: Male

DAY ON TEST: 679

DOSE: 750 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-330

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Heart                  | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Liver                  | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Prostate                 | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Trachea                | * Urinary Bladder          |                           |

OBSERVATIONS

|                           |   |                              |                  |
|---------------------------|---|------------------------------|------------------|
| * Adrenal Cortex          |   | Degeneration                 | Cystic, Moderate |
| * Adrenal Medulla         | Bilateral                                     | Pheochromocytoma Benign      |                  |
| * Bone Marrow             |   | Hyperplasia                  | Mild             |
| * Intestine Large, Cecum  |   | Mineralization               | Mild             |
| * Kidney                  |   | Cyst                         | Moderate         |
|                           | Renal Tubule                                  | Hyperplasia                  | Minimal          |
|                           | Transit Epithe                                | Hyperplasia                  | Mild             |
|                           |   | Nephropathy                  | Marked           |
|                           | [ Nephropathy TGLS = 7-7 ]                    |                              |                  |
| * Lung                    |   | Alveolar/Bronchiolar Adenoma |                  |
|                           | [ Alveolar/Bronchiolar Adenoma TGLS = 11-13 ] |                              |                  |
| * Lymph Node, Mediastinal |   | Hemorrhage                   | Mild             |
| * Nose                    | Respirat Epith                                | Hyperplasia                  | Minimal          |
|                           |   | Inflammation                 | Minimal          |
| * Pancreas                | Acinus  | Atrophy                      | Mild             |
| * Parathyroid Gland       |   | Hyperplasia                  | Mild             |
|                           | [ Hyperplasia TGLS = 10-3 ]                   |                              |                  |
| * Pituitary Gland         | Pars Distalis                                 | Cyst                         | Moderate         |
|                           | Pars Distalis                                 | Hyperplasia                  | Moderate         |
|                           | [ Cyst TGLS = 8-1 ]                           |                              |                  |
|                           | [ Hyperplasia TGLS = 9-1 ]                    |                              |                  |
| * Preputial Gland         |   | Adenoma                      |                  |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 330 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 679   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-330 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                   |  |                    |          |
|-----------------------------------|--|--------------------|----------|
| [ Adenoma TGLS = 1-14 ]           |  |                    |          |
| * Spleen                          |  | Depletion Cellular | Moderate |
| [ Depletion Cellular TGLS = 6-5 ] |  |                    |          |
| * Testes                          | Bilateral, Interstit Cell<br>Bilateral | Adenoma<br>Atrophy | Moderate |
| [ Adenoma TGLS = 5-9 ]            |  |                    |          |
| [ Atrophy TGLS = 4-9 ]            |  |                    |          |
| * Thyroid Gland                   | Follicle                               | Cyst               | Marked   |
| [ Cyst TGLS = 10-3 ]              |  |                    |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 331

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 672

HISTO: 90-5201-331

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                      |                             |                          |
|----------------------------|----------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel       | * Bone                      | * Brain                  |
| * Epididymis               | * Esophagus          | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic | * Larynx                    | * Lymph Node, Mandibular |
| * Nose                     | * Pancreas           | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle    | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thyroid Gland            | * Trachea            |                             |                          |

MISSING

|                         |          |
|-------------------------|----------|
| * Lymph Node, Bronchial | * Thymus |
|-------------------------|----------|

OBSERVATIONS

|                           |                |                                      |                      |
|---------------------------|----------------|--------------------------------------|----------------------|
| * Adrenal Medulla         | Bilateral      | Hyperplasia                          | Mild                 |
| * Bone Marrow             |                | Leukemia Mononuclear                 |                      |
| * Heart                   |                | Leukemia Mononuclear                 |                      |
| * Intestine Large, Cecum  |                | Leukemia Mononuclear                 |                      |
| * Intestine Large, Colon  |                | Leukemia Mononuclear                 |                      |
| * Intestine Large, Rectum |                | Leukemia Mononuclear                 |                      |
| * Kidney                  | Transit Epithe | Hyperplasia                          | Minimal              |
|                           |                | Leukemia Mononuclear                 |                      |
|                           |                | Nephropathy                          | Moderate             |
|                           |                | Pigmentation                         | Mild                 |
| * Liver                   |                | Leukemia Mononuclear                 |                      |
|                           |                | [ Leukemia Mononuclear TGLS = 4-5 ]  |                      |
| * Lung                    |                | Inflammation                         | Chronic Active, Mild |
|                           |                | Leukemia Mononuclear                 |                      |
|                           |                | Leukemia Mononuclear                 |                      |
|                           | Renal          |                                      |                      |
|                           |                | [ Leukemia Mononuclear TGLS = 6-14 ] |                      |
| * Lymph Node, Mediastinal |                | Leukemia Mononuclear                 |                      |
|                           |                | [ Leukemia Mononuclear TGLS = 3-5 ]  |                      |
| * Lymph Node, Mesenteric  |                | Leukemia Mononuclear                 |                      |
|                           |                | [ Leukemia Mononuclear TGLS = 8-8 ]  |                      |
| * Mammary Gland           |                | Pigmentation                         | Mild                 |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 331 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 672   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-331 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                     |                                       |                      |         |
|---------------------|---------------------------------------|----------------------|---------|
| * Parathyroid Gland |                                       | Hyperplasia          | Mild    |
| * Pituitary Gland   | Pars Distalis                         | Cyst                 | Minimal |
| * Skin              |                                       | Keratoacanthoma      |         |
|                     | [ Keratoacanthoma TGLS = 7-13 ]       |                      |         |
| * Spleen            |                                       | Leukemia Mononuclear |         |
|                     | [ Leukemia Mononuclear TGLS = 1,2-5 ] |                      |         |
| * Testes            | Bilateral, Interstit Cell             | Adenoma              |         |
|                     | [ Adenoma TGLS = 5-9 ]                |                      |         |
| * Urinary Bladder   |                                       | Hemorrhage           | Mild    |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 332

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 663

HISTO: 90-5201-332

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                          |                           |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Medulla           | * Bone                   | * Brain                  | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic     | * Larynx                  |
| * Lung                      | * Lymph Node, Mandibular | * Pancreas               | * Preputial Gland         |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                   | * Spleen                  |
| * Stomach, Forestomach      | * Thymus                 | * Thyroid Gland          | * Trachea                 |
| * Urinary Bladder           |                          |                          |                           |

MISSING

\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Small, Jejunum

OBSERVATIONS

|                           |                            |                    |              |
|---------------------------|----------------------------|--------------------|--------------|
| * Adrenal Cortex          |                            | Degeneration       | Cystic, Mild |
| * Blood Vessel            | Aorta                      | Mineralization     | Moderate     |
| * Bone Marrow             |                            | Hemorrhage         | Moderate     |
| * Heart                   |                            | Cardiomyopathy     | Mild         |
| * Kidney                  | Renal Tubule               | Adenoma            |              |
|                           | Transit Epithe             | Hyperplasia        | Mild         |
|                           |                            | Nephropathy        | Marked       |
|                           | [ Nephropathy TGLS = 3-7 ] |                    |              |
| * Liver                   |                            | Degeneration       | Cystic, Mild |
|                           |                            | Eosinophilic Focus | Mild         |
| * Lymph Node, Mediastinal |                            | Edema              | Mild         |
|                           |                            | Hemorrhage         | Mild         |
| * Lymph Node, Mesenteric  |                            | Hemorrhage         | Mild         |
| * Mammary Gland           |                            | Galactocele        | Mild         |
| * Nose                    |                            | Inflammation       | Mild         |
| * Parathyroid Gland       |                            | Hyperplasia        | Moderate     |
|                           | [ Hyperplasia TGLS = 1-3 ] |                    |              |
| * Pituitary Gland         | Pars Distalis              | Adenoma            |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 332 | <b>TRT#:</b> 4       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 663   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-332 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                           |                |          |
|------------------------|---------------------------|----------------|----------|
| [ Adenoma TGLS = 4-1 ] |                           |                |          |
| * Prostate             |                           | Inflammation   | Moderate |
| * Stomach, Glandular   |                           | Mineralization | Mild     |
| * Testes               | Bilateral, Interstit Cell | Adenoma        |          |
| [ Adenoma TGLS = 2-9 ] |                           |                |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 333

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 596

HISTO: 90-5201-333

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Liver                     | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   |
| * Pancreas                 | * Pituitary Gland         | * Preputial Gland           | * Prostate               |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

MISSING

|          |                         |                     |  |
|----------|-------------------------|---------------------|--|
| * Larynx | * Lymph Node, Bronchial | * Parathyroid Gland |  |
|----------|-------------------------|---------------------|--|

OBSERVATIONS

|   |                           |                           |          |
|---|---------------------------|---------------------------|----------|
| * Adrenal Cortex  |                           | Hyperplasia               | Mild     |
|   |                           | Vacuolization Cytoplasmic | Mild     |
| * Bone Marrow   |                           | Hyperplasia               | Moderate |
| * Kidney  | Renal Tubule              | Hyperplasia               | Minimal  |
|   | Transit Epithe            | Hyperplasia               | Mild     |
|   |                           | Nephropathy               | Moderate |
|   |                           |                           |          |
| [ Nephropathy TGLS = 1-7 ]  |                           |                           |          |
| * Larynx  |                           |                           |          |
| Note: The larynx is present, but the correct area for evaluation was not obtained.    |                           |                           |          |
| Lymph Node  | Renal                     | Hemorrhage                | Mild     |
|   |                           |                           |          |
| [ Hemorrhage TGLS = 3-13 ]  |                           |                           |          |
| * Lymph Node, Mediastinal   |                           | Hemorrhage                | Moderate |
|   |                           | Pigmentation              | Minimal  |
| Oral Mucosa   | Pharyngeal                | Squamous Cell Papilloma   |          |
| Note: The pharyngeal papilloma (on the palate) also extends into the pharyngeal duct. |                           |                           |          |
|   |                           |                           |          |
| [ Squamous Cell Papilloma TGLS = 5-14 ]   |                           |                           |          |
| * Testes  | Bilateral, Interstit Cell | Adenoma                   |          |
|   |                           |                           |          |
| [ Adenoma TGLS = 2-9 ]  |                           |                           |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 333

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 596

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-333

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 334

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 626

HISTO: 90-5201-334

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                           |                             |                          |
|---------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex          | * Bone                    | * Brain                     | * Epididymis             |
| * Esophagus               | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Islets, Pancreatic      | * Larynx                  | * Liver                     | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric  | * Pancreas                  | * Preputial Gland        |
| * Prostate                | * Salivary Glands         | * Seminal Vesicle           | * Skin                   |
| * Thymus                  | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |

MISSING

|                         |                 |
|-------------------------|-----------------|
| * Lymph Node, Bronchial | * Mammary Gland |
|-------------------------|-----------------|

AUTO PRECLUDES DIAG.

|                          |                            |
|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

|                          |                |                |                            |
|--------------------------|----------------|----------------|----------------------------|
| * Adrenal Medulla        |                | Hyperplasia    | Mild                       |
| * Blood Vessel           | Aorta          | Mineralization | Mild                       |
| * Bone Marrow            |                | Myelofibrosis  | Mild                       |
| * Heart                  |                | Cardiomyopathy | Moderate                   |
| * Intestine Large, Colon |                | Mineralization | Mild                       |
| * Kidney                 | Transit Epithe | Hyperplasia    | Mild                       |
|                          |                | Nephropathy    | Marked                     |
|                          |                |                | [ Nephropathy TGLS = 2-7 ] |
| * Lung                   |                | Hemorrhage     | Mild                       |
|                          | Artery         | Mineralization | Mild                       |
| * Nose                   |                | Inflammation   | Mild                       |
|                          | Respirat Epith | Metaplasia     | Squamous, Minimal          |
| * Parathyroid Gland      |                | Hyperplasia    | Marked                     |
|                          |                |                | [ Hyperplasia TGLS = 1-3 ] |
| * Pituitary Gland        | Pars Distalis  | Adenoma        |                            |
|                          | Pars Distalis  | Cyst           | Mild                       |
| * Spleen                 |                | Atrophy        | Moderate                   |
|                          |                |                | [ Atrophy TGLS = 5-5 ]     |
| * Stomach, Forestomach   |                | Mineralization | Mild                       |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 334 | <b>TRT#:</b> 4       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 626   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-334 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                           |                |          |
|------------------------|---------------------------|----------------|----------|
| * Stomach, Glandular   |                           | Mineralization | Moderate |
| * Testes               | Bilateral, Interstit Cell | Adenoma        |          |
| [ Adenoma TGLS = 4-9 ] |                           |                |          |

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 335

TRT#: 4

SEX: Male

DAY ON TEST: 665

DOSE: 750 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-335

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                           |
|----------------------------|---------------------------|-----------------------------|---------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                   |
| * Epididymis               | * Esophagus               | * Heart                     | * Intestine Large, Cecum  |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum  |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Liver                   |
| * Lung                     | * Lymph Node, Bronchial   | * Lymph Node, Mandibular    | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric   | * Nose                    | * Pancreas                  | * Preputial Gland         |
| * Salivary Glands          | * Seminal Vesicle         | * Skin                      | * Spleen                  |
| * Stomach, Glandular       | * Trachea                 | * Urinary Bladder           |                           |

MISSING

\* Thymus

OBSERVATIONS

|                        |                            |                           |          |
|------------------------|----------------------------|---------------------------|----------|
| * Adrenal Cortex       |                            | Vacuolization Cytoplasmic | Moderate |
| * Bone Marrow          |                            | Hyperplasia               | Mild     |
| * Kidney               | Transit Epithe             | Hyperplasia               | Minimal  |
|                        |                            | Nephropathy               | Moderate |
|                        | [ Nephropathy TGLS = 3-7 ] |                           |          |
| * Mammary Gland        |                            | Galactoceles              | Moderate |
| * Parathyroid Gland    |                            | Hyperplasia               | Moderate |
| * Pituitary Gland      | Pars Distalis              | Adenoma                   |          |
|                        | [ Adenoma TGLS = 1-1 ]     |                           |          |
| * Prostate             |                            | Inflammation              | Marked   |
| * Stomach, Forestomach |                            | Ulcer                     | Mild     |
| * Testes               | Interstit Cell             | Hyperplasia               | Mild     |
| * Thyroid Gland        | C Cell                     | Adenoma                   |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 336

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 507

HISTO: 90-5201-336

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                      |                          |
|---------------------------|-----------------------------|----------------------|--------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone               | * Bone Marrow            |
| * Brain                   | * Epididymis                | * Esophagus          | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose               | * Pancreas               |
| * Parathyroid Gland       | * Pituitary Gland           | * Preputial Gland    | * Salivary Glands        |
| * Seminal Vesicle         | * Skin                      | * Spleen             | * Stomach, Forestomach   |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland      | * Trachea                |
| * Urinary Bladder         |                             |                      |                          |

MISSING

- \* Lymph Node, Mediastinal

AUTO PRECLUDES DIAG.

- |                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

- |  |                           |                            |                  |
|--|---------------------------|----------------------------|------------------|
| * Adrenal Medulla                          |                           | Pheochromocytoma Malignant |                  |
| [ Pheochromocytoma Malignant TGLS = 5-13 ] |                           |                            |                  |
| * Heart                                    |                           | Cardiomyopathy             | Mild             |
| * Kidney                                   |                           | Nephropathy                | Mild             |
| * Larynx                                   |                           | Infiltration Cellular      | Lymphocyte, Mild |
| * Liver                                    |                           | Degeneration               | Cystic, Mild     |
| * Lung                                     |                           | Congestion                 | Moderate         |
|  |                           | Hemorrhage                 | Mild             |
| [ Congestion TGLS = 3-6 ]                  |                           |                            |                  |
| [ Hemorrhage TGLS = 3-6 ]                  |                           |                            |                  |
| * Lymph Node, Bronchial                    |                           | Hemorrhage                 | Minimal          |
| * Prostate                                 |                           | Inflammation               | Mild             |
| * Testes                                   | Bilateral, Interstit Cell | Adenoma                    |                  |
| [ Adenoma TGLS = 2-9 ]                     |                           |                            |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 337

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 590

HISTO: 90-5201-337

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mediastinal  |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   | * Pancreas                 |
| * Parathyroid Gland       | * Preputial Gland           | * Salivary Glands        | * Seminal Vesicle          |
| * Skin                    | * Spleen                    | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           |                          |                            |

MISSING

|                   |          |                         |  |
|-------------------|----------|-------------------------|--|
| * Adrenal Medulla | * Larynx | * Lymph Node, Bronchial |  |
|-------------------|----------|-------------------------|--|

OBSERVATIONS

|   |                           |                           |              |
|---|---------------------------|---------------------------|--------------|
| * Bone Marrow   |                           | Hyperplasia               | Minimal      |
| * Heart   |                           | Cardiomyopathy            | Mild         |
| * Kidney  | Renal Tubule              | Hyperplasia               | Mild         |
|   |                           | Nephropathy               | Moderate     |
| [ Nephropathy TGLS = 3-7 ]  |                           |                           |              |
| * Larynx  |                           |                           |              |
| Note: The larynx is present, but the correct section for evaluation was not obtained. |                           |                           |              |
| * Liver   |                           | Angiectasis               | Minimal      |
|   |                           | Basophilic Focus          | Mild         |
|   |                           | Degeneration              | Cystic, Mild |
|   |                           | Vacuolization Cytoplasmic | Mild         |
| Mesentery   | Fat                       | Necrosis                  | Mild         |
| [ Necrosis TGLS = 2-12 ]  |                           |                           |              |
| * Pituitary Gland   | Pars Distalis             | Adenoma                   |              |
| [ Adenoma TGLS = 4-1 ]  |                           |                           |              |
| * Prostate  |                           | Inflammation              | Moderate     |
| * Stomach, Forestomach  |                           | Ulcer                     | Marked       |
| * Stomach, Glandular  |                           | Inflammation              | Mild         |
| * Testes  | Bilateral, Interstit Cell | Adenoma                   |              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 337

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 590

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-337

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 1-9 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 338

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 709

HISTO: 90-5201-338

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Epididymis               | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Nose                      |
| * Pancreas               | * Preputial Gland          | * Prostate                | * Salivary Glands           |
| * Seminal Vesicle        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |

OBSERVATIONS

|                           |                            |                           |          |
|---------------------------|----------------------------|---------------------------|----------|
| * Adrenal Cortex          |                            | Hyperplasia               | Minimal  |
|                           |                            | Vacuolization Cytoplasmic | Minimal  |
| * Kidney                  | Transit Epithe             | Hyperplasia               | Mild     |
|                           |                            | Nephropathy               | Marked   |
|                           | [ Nephropathy TGLS = 3-7 ] |                           |          |
| * Liver                   |                            | Eosinophilic Focus        | Marked   |
|                           |                            | Vacuolization Cytoplasmic | Minimal  |
| * Lymph Node, Mediastinal |                            | Hemorrhage                | Minimal  |
|                           |                            | Pigmentation              | Minimal  |
| * Lymph Node, Mesenteric  |                            | Hemorrhage                | Minimal  |
| * Mammary Gland           |                            | Galactoceles              | Minimal  |
|                           |                            | Hyperplasia               | Minimal  |
| * Parathyroid Gland       |                            | Hyperplasia               | Moderate |
| * Pituitary Gland         | Pars Distalis              | Adenoma                   |          |
|                           | [ Adenoma TGLS = 4-1 ]     |                           |          |
| Skeletal Muscle           |                            | Sarcoma                   |          |
|                           | [ Sarcoma TGLS = 8-15 ]    |                           |          |
| * Testes                  | Bilateral, Interstit Cell  | Adenoma                   |          |
|                           | [ Adenoma TGLS = 1,2-9 ]   |                           |          |
| * Thyroid Gland           | C Cell                     | Adenoma                   |          |
| Zymbal's Gland            |                            | Cyst                      | Marked   |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 338

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 709

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-338

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Cyst TGLS = 9-14 ]

Hyperplasia

Mild

[ Hyperplasia TGLS = 9-14 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 339

TRT#: 4

SEX: Male

DAY ON TEST: 627

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-339

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                            |                          |                           |
|-----------------------------|----------------------------|--------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla          | * Bone                   | * Brain                   |
| * Epididymis                | * Esophagus                | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic     | * Larynx                  |
| * Lung                      | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric | * Mammary Gland           |
| * Pancreas                  | * Pituitary Gland          | * Preputial Gland        | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle          | * Skin                   | * Spleen                  |
| * Thymus                    | * Thyroid Gland            | * Trachea                | * Urinary Bladder         |

AUTO PRECLUDES DIAG.

|                          |                          |
|--------------------------|--------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum |
|--------------------------|--------------------------|

OBSERVATIONS

|                            |                           |                    |              |
|----------------------------|---------------------------|--------------------|--------------|
| * Blood Vessel             | Aorta                     | Mineralization     | Mild         |
| * Bone Marrow              |                           | Hemorrhage         | Moderate     |
| * Heart                    |                           | Cardiomyopathy     | Minimal      |
| * Kidney                   | Transit Epithe            | Cyst               | Mild         |
|                            |                           | Hyperplasia        | Mild         |
|                            |                           | Nephropathy        | Marked       |
| [ Nephropathy TGLS = 2-7 ] |                           |                    |              |
| * Liver                    |                           | Degeneration       | Cystic, Mild |
|                            |                           | Eosinophilic Focus | Minimal      |
|                            |                           | Necrosis           | Mild         |
| * Lymph Node, Bronchial    |                           | Hemorrhage         | Mild         |
| * Lymph Node, Mediastinal  |                           | Hemorrhage         | Minimal      |
| * Nose                     |                           | Inflammation       | Mild         |
| * Parathyroid Gland        |                           | Hyperplasia        | Marked       |
| [ Hyperplasia TGLS = 1-3 ] |                           |                    |              |
| * Stomach, Forestomach     |                           | Mineralization     | Mild         |
| * Stomach, Glandular       |                           | Mineralization     | Moderate     |
| * Testes                   | Bilateral, Interstit Cell | Adenoma            |              |
| [ Adenoma TGLS = 4-9 ]     |                           |                    |              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 339

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 627

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-339

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 340

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 641

HISTO: 90-5201-340

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                          |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Bone Marrow            | * Brain                  |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic     |
| * Larynx                  | * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric |
| * Pancreas                | * Preputial Gland           | * Salivary Glands        | * Seminal Vesicle        |
| * Skin                    | * Spleen                    | * Thymus                 | * Trachea                |
| * Urinary Bladder         |                             |                          |                          |

MISSING

- \* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

- \* Intestine Small, Jejunum

OBSERVATIONS

- |   |               |                            |          |
|---|---------------|----------------------------|----------|
| * Blood Vessel  | Aorta         | Mineralization             | Mild     |
| * Bone  |               | Fibrous Osteodystrophy     | Mild     |
| * Heart   |               | Cardiomyopathy             | Minimal  |
| * Kidney  |               | Cyst                       | Moderate |
|   |               | Nephropathy                | Marked   |
| Note: Only the right kidney was evaluated. The left kidney was missing at trim. |               |                            |          |
|   |               | [ Cyst TGLS = 3-7 ]        |          |
|   |               | [ Nephropathy TGLS = 4-7 ] |          |
| * Liver   |               | Basophilic Focus           | Minimal  |
| Lymph Node  | Renal         | Hemorrhage                 | Moderate |
|   |               | [ Hemorrhage TGLS = 7-13 ] |          |
| * Lymph Node, Mediastinal   |               | Hemorrhage                 | Moderate |
| * Mammary Gland   |               | Hyperplasia                | Mild     |
| * Nose  |               | Inflammation               | Mild     |
| * Parathyroid Gland   |               | Hyperplasia                | Marked   |
|   |               | [ Hyperplasia TGLS = 1-3 ] |          |
| * Pituitary Gland   | Pars Distalis | Adenoma                    |          |
| * Prostate  |               | Inflammation               | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 340 | <b>TRT#:</b> 4       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 641   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-340 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                           |                |      |
|------------------------|---------------------------|----------------|------|
| * Stomach, Forestomach |                           | Mineralization | Mild |
| * Stomach, Glandular   |                           | Mineralization | Mild |
| * Testes               | Bilateral, Interstit Cell | Adenoma        |      |
| [ Adenoma TGLS = 6-9 ] |                           |                |      |
| * Thyroid Gland        | Follicle                  | Cyst           | Mild |

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 341

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 597

HISTO: 90-5201-341

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                           |                            |
|---------------------------|-----------------------------|---------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                    | * Bone Marrow              |
| * Brain                   | * Esophagus                 | * Intestine Large, Cecum  | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum  | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Liver                   | * Lung                     |
| * Lymph Node, Bronchial   | * Lymph Node, Mandibular    | * Lymph Node, Mediastinal | * Mammary Gland            |
| * Nose                    | * Pancreas                  | * Parathyroid Gland       | * Preputial Gland          |
| * Salivary Glands         | * Seminal Vesicle           | * Skin                    | * Spleen                   |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland           | * Trachea                  |
| * Urinary Bladder         |                             |                           |                            |

OBSERVATIONS

|                            |                           |                |                 |
|----------------------------|---------------------------|----------------|-----------------|
| * Adrenal Cortex           |                           | Degeneration   | Cystic, Minimal |
| * Epididymis               |                           | Inflammation   | Mild            |
| * Heart                    |                           | Cardiomyopathy | Moderate        |
| * Kidney                   | Renal Tubule              | Carcinoma      |                 |
|                            |                           | Nephropathy    | Marked          |
|                            |                           |                |                 |
|                            |                           |                |                 |
| [ Carcinoma TGLS = 2-7 ]   |                           |                |                 |
| [ Nephropathy TGLS = 3-7 ] |                           |                |                 |
| * Lymph Node, Mesenteric   |                           | Hemorrhage     | Moderate        |
| * Pituitary Gland          | Pars Distalis             | Adenoma        |                 |
| * Prostate                 |                           | Inflammation   | Minimal         |
| * Stomach, Forestomach     |                           | Hyperplasia    | Mild            |
| * Testes                   | Bilateral, Interstit Cell | Adenoma        |                 |
|                            |                           |                |                 |
| [ Adenoma TGLS = 1-9 ]     |                           |                |                 |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 342

TRT#: 4

SEX: Male

DAY ON TEST: 645

DOSE: 750 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-342

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Epididymis               |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Larynx                  | * Liver                     | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Pancreas                  | * Pituitary Gland        | * Preputial Gland          |
| * Salivary Glands         | * Seminal Vesicle           | * Skin                   | * Spleen                   |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         |                             |                          |                            |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |                           |                           |                            |
|---------------------------|---------------------------|---------------------------|----------------------------|
| * Adrenal Cortex          |                           | Vacuolization Cytoplasmic | Mild                       |
| * Adrenal Medulla         |                           | Pheochromocytoma Benign   |                            |
| * Bone Marrow             |                           | Hyperplasia               | Mild                       |
| * Islets, Pancreatic      |                           | Adenoma                   |                            |
| * Kidney                  |                           | Cyst                      | Moderate                   |
|                           | Renal Tubule              | Hyperplasia               | Mild                       |
|                           | Transit Epithe            | Hyperplasia               | Mild                       |
|                           |                           | Nephropathy               | Marked                     |
|                           |                           |                           | [ Nephropathy TGLS = 4-7 ] |
| * Lymph Node, Mediastinal |                           | Pigmentation              | Minimal                    |
| * Mammary Gland           |                           | Pigmentation              | Mild                       |
| * Nose                    | Olfactory Epi             | Inflammation              | Minimal                    |
|                           | Olfactory Epi             | Metaplasia                | Mild                       |
| * Parathyroid Gland       |                           | Hyperplasia               | Moderate                   |
|                           |                           |                           | [ Hyperplasia TGLS = 2-3 ] |
| * Prostate                |                           | Inflammation              | Moderate                   |
| * Stomach, Forestomach    |                           | Ulcer                     | Moderate                   |
| * Testes                  | Bilateral, Interstit Cell | Adenoma                   |                            |
|                           |                           |                           | [ Adenoma TGLS = 6-9 ]     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 342

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:** 645

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-342

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 343

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 500

HISTO: 90-5201-343

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                           |                           |                             |
|--------------------------|---------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla         | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Epididymis              | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon  | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Islets, Pancreatic     | * Liver                   | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Prostate                | * Salivary Glands         | * Seminal Vesicle           |
| * Skin                   | * Spleen                  | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland           | * Trachea                 | * Urinary Bladder           |

MISSING

|          |                     |                   |
|----------|---------------------|-------------------|
| * Larynx | * Parathyroid Gland | * Pituitary Gland |
|----------|---------------------|-------------------|

AUTO PRECLUDES DIAG.

|                          |                            |
|--------------------------|----------------------------|
| * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

|  |                           |                  |         |
|--|---------------------------|------------------|---------|
| * Brain  |                           | Glioma Malignant |         |
| Note: Postmortem autolysis prevented a more definitive diagnosis of the brain tumor. |                           |                  |         |
| [ Glioma Malignant TGLS = 3-1 ]  |                           |                  |         |
| * Kidney   | Transit Epithe            | Hyperplasia      | Minimal |
|  |                           | Nephropathy      | Mild    |
| * Pancreas   | Acinus                    | Atrophy          | Mild    |
| * Preputial Gland  | Bilateral                 | Adenoma          |         |
| [ Adenoma TGLS = 1-13 ]  |                           |                  |         |
| * Testes   | Bilateral, Interstit Cell | Adenoma          |         |
| [ Adenoma TGLS = 2-9 ]   |                           |                  |         |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 344

TRT#: 4

SEX: Male

DAY ON TEST: 377

DOSE: 750 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-344

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Epididymis               | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric    | * Nose                   | * Pancreas                 | * Parathyroid Gland       |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Testes                   | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          |                           |

MISSING

\* Larynx

OBSERVATIONS

|                   |   |                            |          |
|-------------------|---|----------------------------|----------|
| * Kidney          |   | Nephropathy                | Mild     |
| * Liver           |   | Hepatodiaphragmatic Nodule |          |
|                   |   | Vacuolization Cytoplasmic  | Minimal  |
|                   | [ Hepatodiaphragmatic Nodule TGLS = 3-5 ] |                            |          |
| * Mammary Gland   |   | Galactocele                | Minimal  |
| * Pituitary Gland | Pars Distalis                             | Adenoma                    |          |
|                   | [ Adenoma TGLS = 2-1 ]                    |                            |          |
| * Preputial Gland |   | Inflammation               | Moderate |
| * Prostate        |   | Inflammation               | Moderate |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 345

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 591

HISTO: 90-5201-345

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lymph Node, Mesenteric    | * Nose                   | * Salivary Glands          | * Seminal Vesicle         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach     | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          |                           |

MISSING

|          |                         |
|----------|-------------------------|
| * Larynx | * Lymph Node, Bronchial |
|----------|-------------------------|

OBSERVATIONS

|   |                |                        |              |
|---|----------------|------------------------|--------------|
| * Blood Vessel<br>[ Mineralization TGLS = 10-4 ]  | Aorta          | Mineralization         | Moderate     |
| * Bone  |                | Fibrous Osteodystrophy | Moderate     |
| * Bone Marrow   |                | Hyperplasia            | Moderate     |
| * Heart   |                | Cardiomyopathy         | Moderate     |
|   |                | Mineralization         | Moderate     |
| * Kidney  |                | Cyst                   | Mild         |
|   | Transit Epithe | Hyperplasia            | Moderate     |
|   |                | Mineralization         | Mild         |
|   |                | Nephropathy            | Marked       |
| [ Nephropathy TGLS = 4-7 ]  |                |                        |              |
| * Larynx<br>Note: Larynx is present, but the section is in the wrong location for evaluation. |                |                        |              |
| * Liver   |                | Degeneration           | Cystic, Mild |
|   |                | Necrosis               | Moderate     |
| * Lung<br>[ Hemorrhage TGLS = 5,6-6 ]   |                | Hemorrhage             | Mild         |
| * Lymph Node, Mandibular  |                | Hemorrhage             | Minimal      |
| * Lymph Node, Mediastinal   |                | Hemorrhage             | Mild         |
| * Mammary Gland   |                | Pigmentation           | Mild         |
| * Pancreas  | Acinus         | Atrophy                | Minimal      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 345 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 591   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-345 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |                           |                |          |
|---|---------------------------|----------------|----------|
| * Parathyroid Gland<br>[ Hyperplasia TGLS = 9-3 ] |                           | Hyperplasia    | Marked   |
| * Pituitary Gland<br>[ Adenoma TGLS = 7-1 ]       | Pars Distalis             | Adenoma        |          |
| * Preputial Gland                                 |                           | Inflammation   | Marked   |
| * Prostate  |                           | Inflammation   | Moderate |
| * Stomach, Glandular                              |                           | Mineralization | Moderate |
| * Testes<br>[ Adenoma TGLS = 1,2-9 ]              | Bilateral, Interstit Cell | Adenoma        |          |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 346

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Natural Death

DAY ON TEST: 696

HISTO: 90-5201-346

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Epididymis              | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lymph Node, Mandibular    | * Lymph Node, Mesenteric | * Mammary Gland            |
| * Pituitary Gland         | * Preputial Gland           | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         |                             |                          |                            |

OBSERVATIONS

|  |                |                         |                |
|--|----------------|-------------------------|----------------|
| * Adrenal Medulla                      |                | Pheochromocytoma Benign |                |
| [ Pheochromocytoma Benign TGLS = 4-3 ] |                |                         |                |
| * Bone Marrow                          |                | Hyperplasia             | Mild           |
| * Heart                                |                | Cardiomyopathy          | Mild           |
| * Kidney                               |                | Nephropathy             | Moderate       |
| [ Nephropathy TGLS = 5-7 ]             |                |                         |                |
| * Larynx                               | Respirat Epith | Metaplasia              | Squamous, Mild |
| * Liver                                |                | Degeneration            | Cystic, Mild   |
| * Lung                                 |                | Congestion              | Moderate       |
|  |                | Hemorrhage              | Moderate       |
| Lymph Node                             | Renal          | Hemorrhage              | Mild           |
|  | Renal          | Hyperplasia             | Lymphoid, Mild |
| [ Hemorrhage TGLS = 6-13 ]             |                |                         |                |
| [ Hyperplasia TGLS = 6-13 ]            |                |                         |                |
| * Lymph Node, Bronchial                |                | Hemorrhage              | Mild           |
|  |                | Pigmentation            | Minimal        |
| * Lymph Node, Mediastinal              |                | Hemorrhage              | Marked         |
|  |                | Pigmentation            | Minimal        |
| [ Hemorrhage TGLS = 7-5 ]              |                |                         |                |
| * Nose                                 |                | Congestion              | Marked         |
|  |                | Foreign Body            | Minimal        |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 346 | <b>TRT#:</b> 4       | <b>SEX:</b> Male           | <b>DAY ON TEST:</b> 696   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-346 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                     |                           |              |          |
|---------------------|---------------------------|--------------|----------|
| * Pancreas          | Acinus                    | Inflammation | Minimal  |
| * Parathyroid Gland |                           | Atrophy      | Mild     |
| * Testes            | Bilateral, Interstit Cell | Hyperplasia  | Moderate |
|                     |                           | Adenoma      |          |

[ Adenoma TGLS = 1,2-9 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 347

TRT#: 4

SEX: Male

DAY ON TEST: 383

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-347

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                             |                          |
|--------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla        | * Blood Vessel            | * Bone                      | * Brain                  |
| * Epididymis             | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic     |
| * Larynx                 | * Lung                    | * Lymph Node, Mandibular    | * Lymph Node, Mesenteric |
| * Mammary Gland          | * Parathyroid Gland       | * Pituitary Gland           | * Preputial Gland        |
| * Salivary Glands        | * Seminal Vesicle         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular     | * Thyroid Gland           | * Trachea                   |                          |

AUTO PRECLUDES DIAG.

- |                          |                            |
|--------------------------|----------------------------|
| * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

- |                           |                |                                     |          |
|---------------------------|----------------|-------------------------------------|----------|
| * Adrenal Cortex          |                | Necrosis                            | Mild     |
| * Bone Marrow             |                | Leukemia Mononuclear                |          |
| * Kidney                  |                | Nephropathy                         | Mild     |
|                           |                | Pigmentation                        | Moderate |
| * Liver                   |                | Leukemia Mononuclear                |          |
| * Lymph Node, Bronchial   |                | Hemorrhage                          | Moderate |
| * Lymph Node, Mediastinal |                | Edema                               | Mild     |
|                           |                | Hemorrhage                          | Mild     |
| * Nose                    | Respirat Epith | Inflammation                        | Minimal  |
| * Pancreas                | Acinus         | Atrophy                             | Mild     |
| * Prostate                |                | Inflammation                        | Marked   |
| * Spleen                  |                | Leukemia Mononuclear                |          |
|                           |                | [ Leukemia Mononuclear TGLS = 1-5 ] |          |
| * Testes                  |                | Degeneration                        | Mild     |
|                           | Interstit Cell | Hyperplasia                         | Minimal  |
| * Thymus                  |                | Hemorrhage                          | Mild     |
| * Urinary Bladder         |                | Leukemia Mononuclear                |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 348

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 696

HISTO: 90-5201-348

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Bone                   | * Brain                    | * Epididymis              |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Mammary Gland           |
| * Nose                      | * Pituitary Gland        | * Prostate                 | * Salivary Glands         |
| * Seminal Vesicle           | * Skin                   | * Spleen                   | * Stomach, Forestomach    |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |

OBSERVATIONS

|  |                |  |                      |
|--|----------------|--|----------------------|
| * Adrenal Medulla                      |                | Hyperplasia<br>Pheochromocytoma Benign | Minimal              |
| [ Pheochromocytoma Benign TGLS = 4-3 ] |                |  |                      |
| * Blood Vessel                         | Aorta          | Mineralization                         | Moderate             |
| * Bone Marrow                          |                | Hemorrhage                             | Minimal              |
|  |                | Myelofibrosis                          | Mild                 |
| * Heart                                |                | Cardiomyopathy                         | Mild                 |
| * Kidney                               |                | Cyst                                   | Moderate             |
|  | Renal Tubule   | Hyperplasia                            | Moderate             |
|  | Transit Epithe | Hyperplasia                            | Minimal              |
|  |                | Nephropathy                            | Marked               |
| [ Nephropathy TGLS = 3-7 ]             |                |  |                      |
| * Liver                                |                | Degeneration                           | Cystic, Moderate     |
| * Lung                                 |                | Fibrosis                               | Mild                 |
|  |                | Hemorrhage                             | Mild                 |
|  |                | Inflammation                           | Chronic Active, Mild |
|  |                | Mineralization                         | Minimal              |
| * Lymph Node, Mediastinal              |                | Hemorrhage                             | Mild                 |
| * Lymph Node, Mesenteric               |                | Hemorrhage                             | Minimal              |
| * Pancreas                             | Acinus         | Atrophy                                | Mild                 |
| * Parathyroid Gland                    |                | Hyperplasia                            | Moderate             |
| [ Hyperplasia TGLS = 5-3 ]             |                |  |                      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 348 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 696   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-348 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                              |                           |                |        |
|------------------------------|---------------------------|----------------|--------|
| * Preputial Gland            |                           | Hyperplasia    | Mild   |
|                              |                           | Inflammation   | Marked |
| [ Inflammation TGLS = 1-10 ] |                           |                |        |
| * Stomach, Glandular         |                           | Mineralization | Mild   |
| * Testes                     | Bilateral, Interstit Cell | Adenoma        |        |
| [ Adenoma TGLS = 2-9 ]       |                           |                |        |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 349

TRT#: 4

DOSE: 750 PPM

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST: 594

HISTO: 90-5201-349

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Bronchial     | * Lymph Node, Mesenteric |
| * Mammary Gland            | * Pancreas                | * Pituitary Gland           | * Preputial Gland        |
| * Prostate                 | * Salivary Glands         | * Seminal Vesicle           | * Skin                   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

MISSING

\* Larynx

OBSERVATIONS

|   |                |                      |                   |
|---|----------------|----------------------|-------------------|
| * Bone Marrow   |                | Hyperplasia          | Marked            |
| * Heart   |                | Leukemia Mononuclear |                   |
| [ Leukemia Mononuclear TGLS = 6-4 ]   |                |                      |                   |
| * Kidney  |                | Leukemia Mononuclear |                   |
| [ Leukemia Mononuclear TGLS = 2-7 ]   |                | Nephropathy          | Mild              |
| [ Nephropathy TGLS = 2-7 ]  |                |                      |                   |
| * Larynx  |                |                      |                   |
| Note: The larynx is present, but the correct section for evaluation was not obtained. |                |                      |                   |
| * Liver   |                | Degeneration         | Cystic, Minimal   |
|   |                | Leukemia Mononuclear |                   |
| * Lung  |                | Leukemia Mononuclear |                   |
| Lymph Node  | Renal          | Leukemia Mononuclear |                   |
| [ Leukemia Mononuclear TGLS = 5-13 ]  |                |                      |                   |
| * Lymph Node, Mandibular  |                | Hyperplasia          | Plasma Cell, Mild |
| * Lymph Node, Mediastinal   |                | Hemorrhage           | Minimal           |
| * Nose  | Respirat Epith | Hyperplasia          | Mild              |
|   |                | Inflammation         | Moderate          |
| * Parathyroid Gland   |                | Hyperplasia          | Mild              |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 349 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 594   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-349 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |                           |                      |      |
|-------------------------------------|---------------------------|----------------------|------|
| [ Hyperplasia TGLS = 1-3 ]          |                           |                      |      |
| * Spleen                            |                           | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 7-5 ] |                           |                      |      |
| * Stomach, Forestomach              |                           | Ulcer                | Mild |
| * Testes                            | Bilateral, Interstit Cell | Adenoma              |      |
| [ Adenoma TGLS = 3-9 ]              |                           |                      |      |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03  
Test Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: Ethylbenzene  
CAS Number: 100-41-4

Date Report Requested: 10/18/2014  
Time Report Requested: 23:45:34  
First Dose M/F: NA / NA  
Lab: IIT

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ANIMAL ID: 350                                      TRT#: 4                                      SEX: Male                                      DAY ON TEST: 539  
DOSE: 750 PPM                                      DISP: Moribund Sacrifice                                      HISTO: 90-5201-350

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Brain                    | * Epididymis              | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Mammary Gland           | * Nose                      | * Pituitary Gland        |
| * Preputial Gland          | * Prostate                | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         |                             |                          |

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**MISSING**

\* Thymus

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**OBSERVATIONS**

|                           |                            |                           |                         |
|---------------------------|----------------------------|---------------------------|-------------------------|
| * Adrenal Cortex          |                            | Vacuolization Cytoplasmic | Minimal                 |
| * Adrenal Medulla         |                            | Hyperplasia               | Mild                    |
| * Blood Vessel            | Aorta                      | Mineralization            | Marked                  |
| * Bone                    | Turbinates                 | Hyperostosis              | Mild                    |
| * Bone Marrow             |                            | Hyperplasia               | Mild                    |
|                           |                            | Myelofibrosis             | Mild                    |
| * Heart                   |                            | Cardiomyopathy            | Moderate                |
| * Kidney                  | Transit Epithelium         | Hyperplasia               | Mild                    |
|                           |                            | Mineralization            | Mild                    |
|                           |                            | Nephropathy               | Marked                  |
|                           | [ Nephropathy TGLS = 2-7 ] |                           |                         |
| * Liver                   |                            | Degeneration              | Cystic, Minimal         |
| * Lung                    |                            | Edema                     | Mild                    |
|                           |                            | Hemorrhage                | Mild                    |
|                           |                            | Inflammation              | Chronic Active, Minimal |
|                           |                            | Mineralization            | Minimal                 |
| * Lymph Node, Bronchial   |                            | Hemorrhage                | Minimal                 |
| * Lymph Node, Mediastinal |                            | Hemorrhage                | Mild                    |
| * Pancreas                | Acinus                     | Atrophy                   | Mild                    |
| * Parathyroid Gland       |                            | Hyperplasia               | Marked                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 350 | <b>TRT#:</b> 4       | <b>SEX:</b> Male                | <b>DAY ON TEST:</b> 539   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-350 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                            |                           |                |          |
|----------------------------|---------------------------|----------------|----------|
| [ Hyperplasia TGLS = 1-3 ] |                           |                |          |
| * Stomach, Glandular       |                           | Mineralization | Moderate |
| * Testes                   | Bilateral, Interstit Cell | Adenoma        |          |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 51

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-051

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Liver                  | * Lung                     | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Mammary Gland          | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |               |              |              |
|---------------------------|---------------|--------------|--------------|
| * Adrenal Cortex          |               | Angiectasis  | Mild         |
|                           |               | Degeneration | Cystic, Mild |
| * Kidney                  |               | Nephropathy  | Minimal      |
| * Lymph Node, Mediastinal |               | Hemorrhage   | Minimal      |
|                           |               | Pigmentation | Mild         |
| * Nose                    |               | Inflammation | Minimal      |
| * Pituitary Gland         | Pars Distalis | Adenoma      |              |
| [ Adenoma TGLS = 1-1 ]    |               |              |              |
| * Thyroid Gland           | C Cell        | Hyperplasia  | Mild         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 52

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-052

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric  | * Ovary                     |
| * Pancreas               | * Salivary Glands          | * Skin                    | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

\* Larynx

OBSERVATIONS

|                          |  |                            |                  |
|--------------------------|--|----------------------------|------------------|
| * Adrenal Cortex         |  | Vacuolization Cytoplasmic  | Mild             |
| * Kidney                 |  | Nephropathy                | Minimal          |
| * Liver                  |  | Hepatodiaphragmatic Nodule | Mild             |
|                          |  | Inflammation               | Chronic, Minimal |
|                          | [ Hepatodiaphragmatic Nodule TGLS = 3-12 ] |                            |                  |
| * Lymph Node, Mandibular |  | Hemorrhage                 | Mild             |
| * Mammary Gland          |  | Fibroadenoma               |                  |
|                          |  | Galactocele                | Moderate         |
|                          | [ Fibroadenoma TGLS = 2-14 ]               |                            |                  |
|                          | [ Galactocele TGLS = 1-13 ]                |                            |                  |
| * Nose                   |  | Foreign Body               | Minimal          |
|                          | Respirat Epith                             | Hyperplasia                | Mild             |
|                          |  | Inflammation               | Moderate         |
| * Parathyroid Gland      |  | Atrophy                    | Mild             |
| * Pituitary Gland        | Pars Distalis                              | Adenoma                    |                  |
|                          | [ Adenoma TGLS = 4-1 ]                     |                            |                  |
| * Thyroid Gland          | C Cell                                     | Hyperplasia                | Mild             |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 53

TRT#: 5

SEX: Female

DAY ON TEST: 638

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-053

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Nose                   |
| * Ovary                    | * Pancreas                | * Parathyroid Gland         | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

OBSERVATIONS

- |                           |               |                           |          |
|---------------------------|---------------|---------------------------|----------|
| * Adrenal Cortex          |               | Vacuolization Cytoplasmic | Mild     |
| * Bone Marrow             |               | Hemorrhage                | Mild     |
| * Kidney                  |               | Nephropathy               | Minimal  |
| * Liver                   |               | Vacuolization Cytoplasmic | Minimal  |
| * Lymph Node, Mediastinal |               | Pigmentation              | Mild     |
| * Mammary Gland           |               | Galactocele               | Moderate |
| * Pituitary Gland         | Pars Distalis | Adenoma                   |          |
| [ Adenoma TGLS = 2-1 ]    |               |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 54

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-054

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |

OBSERVATIONS

|                           |               |                           |          |
|---------------------------|---------------|---------------------------|----------|
| * Clitoral Gland          |               | Inflammation              | Moderate |
| * Kidney                  |               | Nephropathy               | Minimal  |
| * Liver                   |               | Basophilic Focus          | Minimal  |
|                           |               | Mixed Cell Focus          | Minimal  |
|                           |               | Vacuolization Cytoplasmic | Minimal  |
| * Lymph Node, Mediastinal |               | Pigmentation              | Minimal  |
| * Mammary Gland           |               | Hyperplasia               | Mild     |
| * Pituitary Gland         | Pars Distalis | Hyperplasia               | Mild     |
| * Thyroid Gland           | C Cell        | Inflammation              | Moderate |
| * Uterus                  |               | Polyp Stromal             |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 55

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-055

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Brain                   | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Mesenteric    |
| * Nose                   | * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  |                           |                             |

OBSERVATIONS

- |   |                |                            |                       |
|---|----------------|----------------------------|-----------------------|
| * Adrenal Cortex                          |                | Leukemia Mononuclear       |                       |
| * Adrenal Medulla                         |                | Leukemia Mononuclear       |                       |
| * Bone Marrow                             |                | Leukemia Mononuclear       |                       |
| * Clitoral Gland                          |                | Adenoma                    |                       |
| [ Adenoma TGLS = 1-15 ]                   |                |                            |                       |
| * Heart                                   |                | Leukemia Mononuclear       |                       |
| * Kidney                                  |                | Leukemia Mononuclear       |                       |
|   |                | Nephropathy                | Minimal               |
| * Larynx                                  |                | Leukemia Mononuclear       |                       |
| * Liver                                   |                | Eosinophilic Focus         | Mild                  |
|   |                | Hepatodiaphragmatic Nodule |                       |
| [ Hepatodiaphragmatic Nodule TGLS = 7-5 ] |                | Leukemia Mononuclear       |                       |
| [ Leukemia Mononuclear TGLS = 7,9-5 ]     |                |                            |                       |
| * Lung                                    | Alveolar Epith | Hyperplasia                | Mild                  |
|   |                | Leukemia Mononuclear       |                       |
| [ Hyperplasia TGLS = 8-12 ]               |                |                            |                       |
| Lymph Node                                | Lumbar         | Leukemia Mononuclear       |                       |
| [ Leukemia Mononuclear TGLS = 4-14 ]      |                |                            |                       |
| * Lymph Node, Bronchial                   |                | Leukemia Mononuclear       |                       |
| * Lymph Node, Mandibular                  |                | Hyperplasia                | Plasma Cell, Moderate |
| * Lymph Node, Mediastinal                 |                | Leukemia Mononuclear       |                       |
| * Mammary Gland                           |                | Hyperplasia                | Mild                  |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:34

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 55

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-055

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                   |                                     |                      |
|-------------------|-------------------------------------|----------------------|
| * Ovary           |                                     | Leukemia Mononuclear |
| * Pituitary Gland | Pars Distalis                       | Adenoma              |
|                   | Pars Distalis                       | Leukemia Mononuclear |
|                   | [ Adenoma TGLS = 5-1 ]              |                      |
| * Spleen          |                                     | Leukemia Mononuclear |
|                   | [ Leukemia Mononuclear TGLS = 2-5 ] |                      |
| * Urinary Bladder |                                     | Leukemia Mononuclear |
| * Uterus          |                                     | Leukemia Mononuclear |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 56

TRT#: 5

SEX: Female

DAY ON TEST: 507

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-056

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Mandibular    |
| * Mammary Gland          | * Nose                     | * Ovary                   | * Salivary Glands           |
| * Skin                   | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

\* Larynx

OBSERVATIONS

|                                     |        |                      |          |
|-------------------------------------|--------|----------------------|----------|
| * Heart                             | Valve  | Degeneration         | Mild     |
| * Kidney                            |        | Mineralization       | Minimal  |
|                                     |        | Nephropathy          | Minimal  |
|                                     |        | Pigmentation         | Moderate |
| * Liver                             |        | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ] |        |                      |          |
| * Lung                              |        | Leukemia Mononuclear |          |
| * Lymph Node, Bronchial             |        | Hemorrhage           | Moderate |
| * Lymph Node, Mediastinal           |        | Leukemia Mononuclear |          |
| * Lymph Node, Mesenteric            |        | Leukemia Mononuclear |          |
| * Pancreas                          | Acinus | Atrophy              | Mild     |
| * Parathyroid Gland                 |        | Hyperplasia          | Mild     |
| * Pituitary Gland                   |        | Cyst                 | Moderate |
| * Spleen                            |        | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-5 ] |        |                      |          |
| * Stomach, Forestomach              |        | Hyperplasia          | Mild     |
| * Stomach, Glandular                |        | Necrosis             | Mild     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 57

TRT#: 5

SEX: Female

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-057

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  |
| * Lung                      | * Lymph Node, Bronchial  | * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric  |
| * Nose                      | * Ovary                  | * Pancreas                 | * Salivary Glands         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Trachea                | * Urinary Bladder          | * Uterus                  |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                              |               |                  |          |
|------------------------------|---------------|------------------|----------|
| * Islets, Pancreatic         |               | Adenoma          |          |
| * Kidney                     |               | Nephropathy      | Mild     |
| * Liver                      |               | Basophilic Focus | Minimal  |
| * Lymph Node, Mandibular     |               | Hemorrhage       | Mild     |
| * Mammary Gland              |               | Carcinoma        | Multiple |
|                              |               | Fibroadenoma     |          |
|                              |               | Hyperplasia      | Mild     |
| [ Carcinoma TGLS = 2-9 ]     |               |                  |          |
| [ Fibroadenoma TGLS = 1-12 ] |               |                  |          |
| * Pituitary Gland            | Pars Distalis | Adenoma          | Multiple |
| [ Adenoma TGLS = 4-1 ]       |               |                  |          |
| * Thyroid Gland              | C Cell        | Adenoma          |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 58

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 651

HISTO: 90-5201-058

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                    |
| * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   |
| * Nose                    | * Ovary                     | * Pancreas               | * Parathyroid Gland        |
| * Pituitary Gland         | * Salivary Glands           | * Skin                   | * Stomach, Glandular       |
| * Thymus                  | * Trachea                   | * Urinary Bladder        | * Uterus                   |

OBSERVATIONS

|                           |                                     |                      |          |
|---------------------------|-------------------------------------|----------------------|----------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear |          |
| * Bone Marrow             |                                     | Leukemia Mononuclear |          |
| * Heart                   |                                     | Cardiomyopathy       | Mild     |
|                           |                                     | Leukemia Mononuclear |          |
| * Kidney                  |                                     | Leukemia Mononuclear |          |
| * Liver                   |                                     | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 2-5 ] |                      |          |
| * Lung                    |                                     | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal |                                     | Leukemia Mononuclear |          |
| * Lymph Node, Mesenteric  |                                     | Leukemia Mononuclear |          |
| * Mammary Gland           |                                     | Adenoma              |          |
|                           |                                     | Galactocele          | Moderate |
|                           |                                     | Hyperplasia          | Moderate |
|                           | [ Adenoma TGLS = 3-9 ]              |                      |          |
|                           | [ Galactocele TGLS = 3-9 ]          |                      |          |
|                           | [ Hyperplasia TGLS = 3-9 ]          |                      |          |
| * Spleen                  |                                     | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 1-5 ] |                      |          |
| * Stomach, Forestomach    |                                     | Hyperplasia          | Moderate |
|                           |                                     | Leukemia Mononuclear |          |
|                           |                                     | Ulcer                | Mild     |
| * Thyroid Gland           | C Cell                              | Hyperplasia          | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 58

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 651

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-058

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 59

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-059

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Ovary                   |
| * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   |                           |

OBSERVATIONS

|                                    |                |                  |                        |
|------------------------------------|----------------|------------------|------------------------|
| * Kidney                           |                | Nephropathy      | Minimal                |
| * Liver                            |                | Basophilic Focus | Mild                   |
| [ Basophilic Focus TGLS = 6,7-14 ] |                |                  |                        |
| * Lung                             |                | Inflammation     | Granulomatous, Minimal |
| * Lymph Node, Bronchial            |                | Pigmentation     | Minimal                |
| * Lymph Node, Mediastinal          |                | Hemorrhage       | Moderate               |
|                                    |                | Pigmentation     | Mild                   |
| [ Hemorrhage TGLS = 2-5 ]          |                |                  |                        |
| [ Pigmentation TGLS = 2-5 ]        |                |                  |                        |
| * Mammary Gland                    |                | Carcinoma        |                        |
| [ Carcinoma TGLS = 1-12 ]          |                |                  |                        |
| * Nose                             | Nasolacrim Dct | Metaplasia       | Squamous, Moderate     |
| * Pituitary Gland                  | Pars Distalis  | Adenoma          |                        |
| [ Adenoma TGLS = 5-1 ]             |                |                  |                        |
| * Skin                             |                | Inflammation     | Chronic, Mild          |
|                                    |                | Ulcer            | Mild                   |
| [ Inflammation TGLS = 8-15 ]       |                |                  |                        |
| [ Ulcer TGLS = 8-15 ]              |                |                  |                        |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 60

TRT#: 5

SEX: Female

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-060

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Nose                   |
| * Ovary                    | * Parathyroid Gland       | * Salivary Glands           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           | * Uterus                 |

MISSING

\* Clitoral Gland

OBSERVATIONS

|                           |  |                  |          |
|---------------------------|--|------------------|----------|
| * Bone Marrow             |  | Hyperplasia      | Minimal  |
| * Kidney                  |  | Mineralization   | Minimal  |
|                           |  | Nephropathy      | Minimal  |
| * Liver                   |  | Basophilic Focus | Mild     |
|                           |  | Necrosis         | Mild     |
| * Lymph Node, Mediastinal |  | Pigmentation     | Minimal  |
| * Mammary Gland           |  | Fibroadenoma     | Multiple |
|                           | [ Fibroadenoma TGLS = 2-12,3-13,1-14 ] |                  |          |
| * Pancreas                | Acinus                                 | Atrophy          | Mild     |
| * Pituitary Gland         | Pars Distalis                          | Adenoma          |          |
|                           | Pars Distalis                          | Cyst             | Mild     |
|                           | [ Adenoma TGLS = 4-1 ]                 |                  |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 61

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-061

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                          |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Blood Vessel            | * Bone                      | * Esophagus              | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic     |
| * Lymph Node, Bronchial   | * Parathyroid Gland         | * Salivary Glands        | * Skin                   |
| * Stomach, Glandular      | * Thyroid Gland             | * Trachea                | * Uterus                 |

OBSERVATIONS

|                                      |                      |          |
|--------------------------------------|----------------------|----------|
| * Adrenal Cortex                     | Leukemia Mononuclear |          |
| * Adrenal Medulla                    | Leukemia Mononuclear |          |
| * Bone Marrow                        | Leukemia Mononuclear |          |
| * Brain                              | Leukemia Mononuclear |          |
| * Clitoral Gland                     | Inflammation         | Moderate |
| [ Inflammation TGLS = 2-9 ]          |                      |          |
| * Heart                              | Leukemia Mononuclear |          |
| * Intestine Large, Cecum             | Leukemia Mononuclear |          |
| * Intestine Small, Jejunum           | Leukemia Mononuclear |          |
| * Kidney                             | Leukemia Mononuclear |          |
|                                      | Nephropathy          | Minimal  |
| * Larynx                             | Leukemia Mononuclear |          |
| * Liver                              | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 8-5 ]  |                      |          |
| * Lung                               | Leukemia Mononuclear |          |
| * Lymph Node, Mandibular             | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-2 ]  |                      |          |
| * Lymph Node, Mediastinal            | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 10-5 ] |                      |          |
| * Lymph Node, Mesenteric             | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 12-8 ] |                      |          |
| * Mammary Gland                      | Fibroadenoma         |          |
| [ Fibroadenoma TGLS = 1-14 ]         |                      |          |
| * Nose                               | Inflammation         | Mild     |
|                                      | Leukemia Mononuclear |          |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |  |   |  |
|----------------------|--|---|--|
| <b>ANIMAL ID:</b> 61 | <b>TRT#:</b> 5<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Female<br><b>DISP:</b> Terminal Sacrifice | <b>DAY ON TEST:</b> 735<br><b>HISTO:</b> 90-5201-061 |
|----------------------|--|---|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |  |                      |         |
|------------------------|--|----------------------|---------|
| * Ovary                |  | Leukemia Mononuclear |         |
| * Pancreas             | Acinus                                     | Atrophy              | Minimal |
|                        |  | Leukemia Mononuclear |         |
|                        | [ Leukemia Mononuclear TGLS = 11-13 ]      |                      |         |
| * Pituitary Gland      | Pars Distalis                              | Adenoma              |         |
|                        | Pars Distalis                              | Leukemia Mononuclear |         |
|                        | [ Leukemia Mononuclear TGLS = 9-1 ]        |                      |         |
| * Spleen               |  | Leukemia Mononuclear |         |
|                        | [ Leukemia Mononuclear TGLS = 5-5;6,7-12 ] |                      |         |
| * Stomach, Forestomach |  | Leukemia Mononuclear |         |
| * Thymus               |  | Leukemia Mononuclear |         |
|                        | [ Leukemia Mononuclear TGLS = 4-2 ]        |                      |         |
| * Urinary Bladder      |  | Leukemia Mononuclear |         |

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PRIMARY CAUSE OF DEATH

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-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 62

TRT#: 5

SEX: Female

DAY ON TEST: 111

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-62

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

\* Adrenal Cortex

\* Adrenal Medulla

\* Blood Vessel

\* Bone

\* Bone Marrow

\* Brain

\* Clitoral Gland

\* Esophagus

\* Heart

\* Intestine Large, Rectum

\* Islets, Pancreatic

\* Kidney

\* Larynx

\* Liver

\* Lymph Node, Bronchial

\* Lymph Node, Mandibular

\* Lymph Node, Mediastinal

\* Lymph Node, Mesenteric

\* Mammary Gland

\* Nose

\* Ovary

\* Parathyroid Gland

\* Pituitary Gland

\* Salivary Glands

\* Skin

\* Thymus

\* Trachea

\* Uterus

**AUTO PRECLUDES DIAG.**

\* Intestine Large, Cecum

\* Intestine Large, Colon

\* Intestine Small, Duodenum

\* Intestine Small, Ileum

\* Intestine Small, Jejunum

\* Pancreas

\* Spleen

\* Stomach, Forestomach

\* Stomach, Glandular

\* Thyroid Gland

\* Urinary Bladder

**OBSERVATIONS**

\* Lung

Congestion

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 63

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-063

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                    |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Mammary Gland            |
| * Nose                    | * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |                            |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|  |               |                                  |          |
|--|---------------|----------------------------------|----------|
| * Adrenal Cortex                         |               | Hemorrhage                       | Mild     |
| * Bone Marrow                            |               | Hyperplasia                      | Mild     |
| * Clitoral Gland                         |               | Carcinoma                        |          |
| [ Carcinoma TGLS = 1-12,13 ]             |               |                                  |          |
| * Kidney                                 |               | Nephropathy                      | Minimal  |
| * Liver                                  |               | Basophilic Focus                 | Mild     |
|  |               | Hematopoietic Cell Proliferation | Moderate |
|  |               | Vacuolization Cytoplasmic        | Mild     |
| [ Vacuolization Cytoplasmic TGLS = 2-5 ] |               |                                  |          |
| * Lymph Node, Mandibular                 |               | Hemorrhage                       | Marked   |
| * Lymph Node, Mediastinal                |               | Hemorrhage                       | Moderate |
| * Lymph Node, Mesenteric                 |               | Hemorrhage                       | Moderate |
| * Ovary                                  |               | Cyst                             | Mild     |
| [ Cyst TGLS = 3-9 ]                      |               |                                  |          |
| * Pituitary Gland                        | Pars Distalis | Hyperplasia                      | Moderate |
| [ Hyperplasia TGLS = 4-1 ]               |               |                                  |          |
| * Spleen                                 |               | Hematopoietic Cell Proliferation | Moderate |
| * Uterus                                 |               | Angiectasis                      | Mild     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 64

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-064

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                          |                           |                             |
|--------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla        | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland         | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Islets, Pancreatic     | * Kidney                  | * Larynx                    |
| * Ovary                  | * Parathyroid Gland      | * Salivary Glands         | * Skin                      |
| * Thymus                 | * Thyroid Gland          | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                          |                           |                             |

MISSING

|                            |                         |
|----------------------------|-------------------------|
| * Intestine Small, Jejunum | * Lymph Node, Bronchial |
|----------------------------|-------------------------|

OBSERVATIONS

|   |        |                              |                      |
|---|--------|------------------------------|----------------------|
| * Bone Marrow                               |        | Atrophy                      | Moderate             |
|   |        | Myelofibrosis                | Moderate             |
| * Liver                                     |        | Leukemia Mononuclear         |                      |
|   |        | Vacuolization Cytoplasmic    | Moderate             |
| [ Leukemia Mononuclear TGLS = 3-5 ]         |        |                              |                      |
| [ Vacuolization Cytoplasmic TGLS = 3-5 ]    |        |                              |                      |
| * Lung                                      |        | Alveolar/Bronchiolar Adenoma |                      |
|   |        | Infiltration Cellular        | Histiocyte, Mild     |
|   |        | Inflammation                 | Chronic, Mild        |
| [ Alveolar/Bronchiolar Adenoma TGLS = 4-6 ] |        |                              |                      |
| * Lymph Node, Mandibular                    |        | Infiltration Cellular        | Histiocyte, Moderate |
| * Lymph Node, Mediastinal                   |        | Hemorrhage                   | Mild                 |
|   |        | Necrosis                     | Mild                 |
| * Lymph Node, Mesenteric                    |        | Infiltration Cellular        | Histiocyte, Mild     |
| * Mammary Gland                             |        | Fibroadenoma                 | Multiple             |
|   |        | Hyperplasia                  | Mild                 |
| [ Fibroadenoma TGLS = 1-12,2-13 ]           |        |                              |                      |
| * Nose                                      |        | Thrombosis                   | Mild                 |
| * Pancreas                                  | Acinus | Atrophy                      | Mild                 |
| * Pituitary Gland                           |        | Infiltration Cellular        | Mixed Cell, Moderate |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:34

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 64

**TRT#:** 5

**DOSE:** CONTROL

**SEX:** Female

**DISP:** Natural Death

**DAY ON TEST:** 735

**HISTO:** 90-5201-064

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |          |                      |          |
|---|----------|----------------------|----------|
|   |          | Necrosis             | Moderate |
| Note: The lesion in the pituitary gland appears to be mononuclear cell leukemia. However it is not present elsewhere in the animal. |          |                      |          |
| * Spleen  | Red Pulp | Atrophy              | Moderate |
|   |          | Leukemia Mononuclear |          |
| * Stomach, Forestomach  |          | Ulcer                | Mild     |
| * Stomach, Glandular  |          | Hyperplasia          | Mild     |

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 65

TRT#: 5

SEX: Female

DAY ON TEST: 496

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-065

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Bone                      | * Bone Marrow            |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Nose                   |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         | * Uterus                    |                          |

MISSING

\* Blood Vessel

OBSERVATIONS

|                           |               |                       |         |
|---------------------------|---------------|-----------------------|---------|
| * Brain                   |               | Astrocytoma Malignant |         |
| * Kidney                  |               | Mineralization        | Minimal |
| * Liver                   |               | Basophilic Focus      | Mild    |
| * Lymph Node, Mediastinal |               | Hemorrhage            | Mild    |
|                           |               | Pigmentation          | Mild    |
| * Mammary Gland           |               | Galactocele           | Mild    |
| * Ovary                   |               | Cyst                  | Mild    |
| * Pancreas                | Acinus        | Atrophy               | Mild    |
| * Pituitary Gland         | Pars Distalis | Adenoma               |         |

[ Adenoma TGLS = 1-1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 66

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-066

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           | * Uterus                 |

OBSERVATIONS

|                            |                |                  |                  |
|----------------------------|----------------|------------------|------------------|
| * Bone                     |                | Hyperostosis     | Mild             |
| * Heart                    |                | Cardiomyopathy   | Minimal          |
| * Kidney                   |                | Nephropathy      | Mild             |
| [ Nephropathy TGLS = 3-7 ] |                |                  |                  |
| * Liver                    |                | Clear Cell Focus | Minimal          |
|                            |                | Inflammation     | Chronic, Minimal |
| * Lymph Node, Bronchial    |                | Pigmentation     | Minimal          |
| * Mammary Gland            |                | Galactocele      | Mild             |
|                            |                | Hyperplasia      | Minimal          |
| [ Galactocele TGLS = 1-8 ] |                |                  |                  |
| [ Hyperplasia TGLS = 1-8 ] |                |                  |                  |
| * Nose                     | Nasolacrim Dct | Inflammation     | Moderate         |
| * Pituitary Gland          | Pars Distalis  | Angiectasis      | Marked           |
| [ Angiectasis TGLS = 2-1 ] |                |                  |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 67

TRT#: 5

SEX: Female

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-067

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Bone                    | * Bone Marrow               | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   |
| * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         | * Uterus                    |                          |

MISSING

|                           |          |
|---------------------------|----------|
| * Lymph Node, Mediastinal | * Thymus |
|---------------------------|----------|

OBSERVATIONS

|                          |               |                           |          |
|--------------------------|---------------|---------------------------|----------|
| * Adrenal Cortex         |               | Hyperplasia               | Mild     |
| * Adrenal Medulla        |               | Pheochromocytoma Benign   |          |
| * Kidney                 |               | Nephropathy               | Mild     |
| * Liver                  |               | Vacuolization Cytoplasmic | Minimal  |
| * Lymph Node, Bronchial  |               | Pigmentation              | Minimal  |
| Mesentery                | Fat           | Necrosis                  | Moderate |
| [ Necrosis TGLS = 1-12 ] |               |                           |          |
| * Ovary                  |               | Cyst                      | Moderate |
| [ Cyst TGLS = 3-9 ]      |               |                           |          |
| * Pituitary Gland        | Pars Distalis | Adenoma                   |          |
|                          | Pars Distalis | Hyperplasia               | Mild     |
| [ Adenoma TGLS = 2-1 ]   |               |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 68

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-068

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Nose                      |
| * Ovary                  | * Salivary Glands          | * Skin                    | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

**OBSERVATIONS**

|                              |               |                      |          |
|------------------------------|---------------|----------------------|----------|
| * Adrenal Cortex             |               | Angiectasis          | Mild     |
| Eye                          | Lens          | Cataract             | Mild     |
|                              | Retina        | Degeneration         | Moderate |
| [ Cataract TGLS = 4-13 ]     |               |                      |          |
| [ Degeneration TGLS = 4-13 ] |               |                      |          |
| * Kidney                     |               | Nephropathy          | Minimal  |
| * Liver                      |               | Angiectasis          | Minimal  |
|                              |               | Basophilic Focus     | Minimal  |
|                              |               | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal    |               | Pigmentation         | Minimal  |
| * Lymph Node, Mesenteric     |               | Hemorrhage           | Moderate |
| * Mammary Gland              |               | Fibroadenoma         |          |
|                              |               | Hyperplasia          | Mild     |
| [ Fibroadenoma TGLS = 1-12 ] |               |                      |          |
| * Pancreas                   | Acinus        | Atrophy              | Mild     |
| * Parathyroid Gland          |               | Hyperplasia          | Minimal  |
| * Pituitary Gland            | Pars Distalis | Adenoma              |          |
| [ Adenoma TGLS = 3-1 ]       |               |                      |          |
| * Spleen                     |               | Leukemia Mononuclear |          |

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 69

TRT#: 5

SEX: Female

DAY ON TEST: 194

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-069

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

\* Adrenal Cortex  
\* Brain  
\* Islets, Pancreatic  
\* Lymph Node, Mediastinal  
\* Salivary Glands  
\* Stomach, Glandular  
\* Uterus

\* Adrenal Medulla  
\* Clitoral Gland  
\* Larynx  
\* Ovary  
\* Skin  
\* Thymus

\* Blood Vessel  
\* Esophagus  
\* Liver  
\* Pancreas  
\* Spleen  
\* Trachea

\* Bone  
\* Heart  
\* Lymph Node, Mandibular  
\* Pituitary Gland  
\* Stomach, Forestomach  
\* Urinary Bladder

MISSING

\* Lymph Node, Bronchial  
\* Thyroid Gland

\* Lymph Node, Mesenteric

\* Mammary Gland

\* Parathyroid Gland

AUTO PRECLUDES DIAG.

\* Bone Marrow  
\* Intestine Small, Duodenum

\* Intestine Large, Cecum  
\* Intestine Small, Ileum

\* Intestine Large, Colon  
\* Intestine Small, Jejunum

\* Intestine Large, Rectum

OBSERVATIONS

\* Kidney  
\* Lung  
[ Congestion TGLS = 3-6 ]

Mineralization  
Congestion

Minimal  
Moderate

\* Nose  
Nasolacrimal Duct

Inflammation

Mild

PRIMARY CAUSE OF DEATH

-

Animal Note: Most tissues were markedly autolytic.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 70

TRT#: 5

SEX: Female

DAY ON TEST: 721

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-070

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                          |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Clitoral Gland         |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic     |
| * Larynx                  | * Lymph Node, Mandibular    | * Nose                   | * Ovary                  |
| * Parathyroid Gland       | * Salivary Glands           | * Skin                   | * Stomach, Forestomach   |
| * Thymus                  | * Trachea                   | * Urinary Bladder        |                          |

MISSING

\* Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

\* Intestine Small, Jejunum

OBSERVATIONS

|                                     |               |                                  |          |
|-------------------------------------|---------------|----------------------------------|----------|
| * Adrenal Cortex                    |               | Vacuolization Cytoplasmic        | Mild     |
| * Adrenal Medulla                   |               | Hyperplasia                      | Minimal  |
| * Bone Marrow                       |               | Hyperplasia                      | Moderate |
| * Kidney                            |               | Nephropathy                      | Mild     |
| * Liver                             | Centrilobular | Degeneration                     | Mild     |
| * Lung                              |               | Congestion                       | Mild     |
| Lymph Node                          | Lumbar        | Histiocytic Sarcoma              |          |
| [ Histiocytic Sarcoma TGLS = 4-13 ] |               |                                  |          |
| * Lymph Node, Mediastinal           |               | Hemorrhage                       | Moderate |
| [ Hemorrhage TGLS = 3-5 ]           |               |                                  |          |
| * Lymph Node, Mesenteric            |               | Hemorrhage                       | Moderate |
| * Mammary Gland                     |               | Fibroadenoma                     |          |
| [ Fibroadenoma TGLS = 1-12 ]        |               |                                  |          |
| * Pancreas                          | Acinus        | Atrophy                          | Mild     |
| * Pituitary Gland                   | Pars Distalis | Adenoma                          |          |
|                                     | Pars Distalis | Cyst                             | Moderate |
| [ Adenoma TGLS = 5-1 ]              |               |                                  |          |
| [ Cyst TGLS = 5-1 ]                 |               |                                  |          |
| * Spleen                            |               | Hematopoietic Cell Proliferation | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |  |  |  |
|----------------------|--|--|--|
| <b>ANIMAL ID:</b> 70 | <b>TRT#:</b> 5<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Female<br><b>DISP:</b> Natural Death | <b>DAY ON TEST:</b> 721<br><b>HISTO:</b> 90-5201-070 |
|----------------------|--|--|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                      |        |               |      |
|----------------------|--------|---------------|------|
| * Stomach, Glandular |        | Necrosis      | Mild |
| * Thyroid Gland      | C Cell | Adenoma       |      |
| * Uterus             |        | Polyp Stromal |      |

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 71

TRT#: 5

SEX: Female

DAY ON TEST: 687

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-071

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone Marrow            | * Brain                    | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Ovary                     | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   |                           |

MISSING

\* Clitoral Gland

OBSERVATIONS

|                           |                              |                                  |          |
|---------------------------|------------------------------|----------------------------------|----------|
| * Adrenal Cortex          |                              | Hyperplasia                      | Mild     |
| * Adrenal Medulla         |                              | Hyperplasia                      | Minimal  |
| * Bone                    |                              | Hyperostosis                     | Mild     |
| * Kidney                  |                              | Cyst                             | Moderate |
|                           |                              | Nephropathy                      | Minimal  |
| * Liver                   |                              | Basophilic Focus                 | Mild     |
| * Lymph Node, Mediastinal |                              | Pigmentation                     | Minimal  |
| * Lymph Node, Mesenteric  |                              | Hemorrhage                       | Mild     |
| * Mammary Gland           |                              | Fibroadenoma                     |          |
|                           | [ Fibroadenoma TGLS = 1-12 ] |                                  |          |
| * Nose                    |                              | Inflammation                     | Mild     |
| * Pancreas                | Acinus                       | Atrophy                          | Minimal  |
| * Pituitary Gland         | Pars Distalis                | Cyst                             | Mild     |
|                           | Pars Distalis                | Hyperplasia                      | Mild     |
| * Spleen                  |                              | Hematopoietic Cell Proliferation | Mild     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 72

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-072

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | * Blood Vessel           | * Bone                     | * Bone Marrow             |
| * Brain                     | * Clitoral Gland         | Ear                        | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Kidney                    | * Larynx                 | * Lung                     | * Lymph Node, Mandibular  |
| * Nose                      | * Ovary                  | * Pancreas                 | * Parathyroid Gland       |
| * Salivary Glands           | * Skin                   | * Spleen                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

|                           |               |                  |         |
|---------------------------|---------------|------------------|---------|
| * Adrenal Cortex          |               | Angiectasis      | Minimal |
| * Liver                   |               | Basophilic Focus | Minimal |
| * Lymph Node, Mediastinal |               | Hemorrhage       | Minimal |
| * Lymph Node, Mesenteric  |               | Hemorrhage       | Minimal |
| * Mammary Gland           |               | Hyperplasia      | Minimal |
| * Pituitary Gland         | Pars Distalis | Angiectasis      | Mild    |
|                           | Pars Distalis | Hyperplasia      | Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 73

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-073

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|   |               |                  |              |
|---|---------------|------------------|--------------|
| * Adrenal Cortex                              |               | Degeneration     | Cystic, Mild |
| * Clitoral Gland                              |               | Adenoma          |              |
| [ Adenoma TGLS = 1-9 ]                        |               |                  |              |
| * Kidney                                      |               | Nephropathy      | Minimal      |
| * Liver                                       |               | Basophilic Focus | Minimal      |
| * Lym Node Mesen                              |               |                  |              |
| Note: The mesenteric lymph node is edematous. |               |                  |              |
| * Lymph Node, Mediastinal                     |               | Hemorrhage       | Mild         |
|   |               | Pigmentation     | Mild         |
| * Mammary Gland                               |               | Fibroadenoma     | Multiple     |
|   |               | Galactocele      | Mild         |
| [ Fibroadenoma TGLS = 2-12,3-13,4-14 ]        |               |                  |              |
| * Pancreas                                    | Acinus        | Atrophy          | Mild         |
| * Pituitary Gland                             | Pars Distalis | Adenoma          |              |
|   | Pars Distalis | Cyst             | Mild         |
| [ Adenoma TGLS = 5-1 ]                        |               |                  |              |
| * Thyroid Gland                               | C Cell        | Hyperplasia      | Minimal      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 74

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-074

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Clitoral Gland           |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mesenteric   |
| * Mammary Gland           | * Ovary                     | * Parathyroid Gland      | * Salivary Glands          |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |

OBSERVATIONS

|   |                |                            |          |
|---|----------------|----------------------------|----------|
| * Adrenal Cortex                          |                | Hemorrhage                 | Moderate |
| * Adrenal Medulla                         |                | Pheochromocytoma Benign    |          |
| [ Pheochromocytoma Benign TGLS = 4-3 ]    |                |                            |          |
| * Bone Marrow                             |                | Leukemia Mononuclear       |          |
| * Kidney                                  |                | Nephropathy                | Minimal  |
|   |                | Pigmentation               | Moderate |
| * Liver                                   |                | Hepatodiaphragmatic Nodule |          |
| [ Hepatodiaphragmatic Nodule TGLS = 5-5 ] |                | Leukemia Mononuclear       |          |
| [ Leukemia Mononuclear TGLS = 7-13 ]      |                |                            |          |
| * Lung                                    |                | Leukemia Mononuclear       |          |
| * Lymph Node, Mandibular                  |                | Leukemia Mononuclear       |          |
| [ Leukemia Mononuclear TGLS = 1-14 ]      |                |                            |          |
| * Lymph Node, Mediastinal                 |                | Leukemia Mononuclear       |          |
| [ Leukemia Mononuclear TGLS = 2-5 ]       |                |                            |          |
| * Nose                                    |                | Foreign Body               | Mild     |
|   | Respirat Epith | Hyperplasia                | Mild     |
|   |                | Inflammation               | Moderate |
| * Pancreas                                | Acinus         | Atrophy                    | Mild     |
| * Pituitary Gland                         | Pars Distalis  | Hyperplasia                | Moderate |
|   |                | Leukemia Mononuclear       |          |
| [ Hyperplasia TGLS = 6-1 ]                |                |                            |          |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 74

**TRT#:** 5  
**DOSE:** CONTROL

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 735  
**HISTO:** 90-5201-074

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 6-1 ]

\* Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-12 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 75

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-075

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | * Blood Vessel           | * Bone                     |
| * Bone Marrow             | * Brain                     | * Clitoral Gland         | Ear                        |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Mammary Gland             | * Nose                   | * Ovary                    |
| * Parathyroid Gland       | * Salivary Glands           | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    |                          |                            |

**OBSERVATIONS**

|                           |               |                  |          |
|---------------------------|---------------|------------------|----------|
| * Kidney                  |               | Nephropathy      | Minimal  |
| * Liver                   |               | Basophilic Focus | Minimal  |
|                           |               | Mixed Cell Focus | Moderate |
| * Lymph Node, Bronchial   |               | Hemorrhage       | Mild     |
|                           |               | Pigmentation     | Mild     |
| * Lymph Node, Mediastinal |               | Hemorrhage       | Mild     |
| * Pancreas                |               | Inflammation     | Mild     |
| * Pituitary Gland         | Pars Distalis | Adenoma          |          |
| [ Adenoma TGLS = 2-1 ]    |               |                  |          |
| * Skin                    | Subcut Tiss   | Fibroma          |          |
| [ Fibroma TGLS = 1-12 ]   |               |                  |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 76

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Natural Death

DAY ON TEST: 659

HISTO: 90-5201-076

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                          |                          |                             |
|----------------------------|--------------------------|--------------------------|-----------------------------|
| * Adrenal Medulla          | * Bone                   | * Clitoral Gland         | * Esophagus                 |
| * Heart                    | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Duodenum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Larynx                 | * Lung                      |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular | * Lymph Node, Mesenteric | * Mammary Gland             |
| * Nose                     | * Ovary                  | * Salivary Glands        | * Skin                      |
| * Stomach, Forestomach     | * Stomach, Glandular     | * Thymus                 | * Trachea                   |
| * Urinary Bladder          | * Uterus                 |                          |                             |

AUTO PRECLUDES DIAG.

\* Intestine Small, Ileum

OBSERVATIONS

|                              |               |                                  |                   |
|------------------------------|---------------|----------------------------------|-------------------|
| * Adrenal Cortex             |               | Necrosis                         | Moderate          |
|                              |               | Vacuolization Cytoplasmic        | Mild              |
| * Blood Vessel               | Aorta         | Inflammation                     | Mild              |
| * Bone Marrow                |               | Hyperplasia                      | Moderate          |
| * Brain                      |               | Necrosis                         | Moderate          |
| * Intestine Large, Rectum    | Arteriole     | Inflammation                     | Moderate          |
| * Kidney                     |               | Infarct                          | Moderate          |
|                              | Arteriole     | Inflammation                     | Moderate          |
|                              |               | Nephropathy                      | Mild              |
| * Liver                      |               | Basophilic Focus                 | Mild              |
| * Lymph Node, Mediastinal    |               | Hyperplasia                      | Plasma Cell, Mild |
| Mesentery                    | Artery        | Inflammation                     | Marked            |
| [ Inflammation TGLS = 2-13 ] |               |                                  |                   |
| * Pancreas                   | Artery        | Inflammation                     | Marked            |
|                              |               | Inflammation                     | Minimal           |
| [ Inflammation TGLS = 6-12 ] |               |                                  |                   |
| * Parathyroid Gland          |               | Hyperplasia                      | Minimal           |
| * Pituitary Gland            | Pars Distalis | Adenoma                          |                   |
| [ Adenoma TGLS = 4-1 ]       |               |                                  |                   |
| * Spleen                     |               | Hematopoietic Cell Proliferation | Moderate          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 76

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 659

**DOSE:** CONTROL

**DISP:** Natural Death

**HISTO:** 90-5201-076

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hematopoietic Cell Proliferation TGLS = 1-5 ]

\* Thyroid Gland

Inflammation

Moderate

Note: The inflammation is vasculitis.

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 77

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-077

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      |
| * Pancreas               | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

OBSERVATIONS

|   |               |                  |          |
|---|---------------|------------------|----------|
| * Clitoral Gland<br>[ Hyperplasia TGLS = 4-9 ]  |               | Hyperplasia      | Mild     |
| * Kidney  |               | Nephropathy      | Minimal  |
| * Liver   |               | Basophilic Focus | Minimal  |
| * Lymph Node, Bronchial                         |               | Hemorrhage       | Mild     |
|   |               | Pigmentation     | Mild     |
| * Lymph Node, Mediastinal                       |               | Hemorrhage       | Minimal  |
|   |               | Pigmentation     | Mild     |
| * Mammary Gland<br>[ Fibroadenoma TGLS = 1-12 ] |               | Fibroadenoma     |          |
| * Ovary<br>[ Cyst TGLS = 2-9 ]                  |               | Cyst             | Moderate |
| * Pituitary Gland<br>[ Hyperplasia TGLS = 3-1 ] | Pars Distalis | Hyperplasia      | Moderate |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 78

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-078

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           | * Skin                   |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         | * Uterus                    |                          |

OBSERVATIONS

|                              |               |                      |                 |
|------------------------------|---------------|----------------------|-----------------|
| * Adrenal Cortex             |               | Degeneration         | Cystic, Minimal |
|                              |               | Hyperplasia          | Mild            |
| * Clitoral Gland             |               | Hyperplasia          | Moderate        |
| [ Hyperplasia TGLS = 3-9 ]   |               |                      |                 |
| * Kidney                     |               | Nephropathy          | Mild            |
| * Liver                      |               | Basophilic Focus     | Minimal         |
|                              |               | Leukemia Mononuclear |                 |
| * Lung                       |               | Fibrosis             | Minimal         |
| * Lymph Node, Mediastinal    |               | Hemorrhage           | Minimal         |
|                              |               | Pigmentation         | Mild            |
| * Mammary Gland              |               | Fibroadenoma         |                 |
| [ Fibroadenoma TGLS = 1-12 ] |               |                      |                 |
| * Pituitary Gland            | Pars Distalis | Adenoma              |                 |
| [ Adenoma TGLS = 2-1 ]       |               |                      |                 |
| * Spleen                     |               | Leukemia Mononuclear |                 |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 79

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-079

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Nose                   | * Ovary                    | * Pancreas                |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   |                           |

OBSERVATIONS

|                           |   |                            |          |
|---------------------------|---|----------------------------|----------|
| * Kidney                  |   | Nephropathy                | Mild     |
| * Liver                   |   | Basophilic Focus           | Minimal  |
|                           |   | Hepatodiaphragmatic Nodule | Moderate |
|                           |   | Mixed Cell Focus           | Minimal  |
|                           | [ Hepatodiaphragmatic Nodule TGLS = 1-5 ] |                            |          |
| * Lung                    |   | Hemorrhage                 | Mild     |
| * Lymph Node, Mediastinal |   | Hemorrhage                 | Mild     |
|                           |   | Pigmentation               | Mild     |
| * Pituitary Gland         | Pars Distalis                             | Adenoma                    |          |
|                           | [ Adenoma TGLS = 2-1 ]                    |                            |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 80

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-080

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric    | * Nose                   | * Ovary                    | * Pancreas                |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   |                           |

MISSING

\* Larynx

OBSERVATIONS

|   |               |                  |         |
|---|---------------|------------------|---------|
| * Kidney  |               | Nephropathy      | Mild    |
| * Larynx  |               |                  |         |
| Note: The larynx is present, but the correct section for evaluation was not obtained. |               |                  |         |
| * Liver   |               | Basophilic Focus | Minimal |
| * Mammary Gland   |               | Fibroadenoma     |         |
|   |               | Galactocele      | Mild    |
|   |               | Hyperplasia      | Mild    |
| [ Fibroadenoma TGLS = 1-12 ]  |               |                  |         |
| * Pituitary Gland   | Pars Distalis | Adenoma          |         |
| [ Adenoma TGLS = 2-1 ]  |               |                  |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 81

TRT#: 5

SEX: Female

DAY ON TEST: 668

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-081

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                          |                           |                             |
|----------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex           | * Adrenal Medulla        | * Blood Vessel            | * Bone                      |
| * Bone Marrow              | * Brain                  | * Clitoral Gland          | * Esophagus                 |
| * Heart                    | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Kidney                  | * Larynx                    |
| * Lung                     | * Lymph Node, Bronchial  | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Mammary Gland            | * Nose                   | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland        | * Salivary Glands        | * Skin                    | * Spleen                    |
| * Stomach, Glandular       | * Thymus                 | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder          | * Uterus                 |                           |                             |

AUTO PRECLUDES DIAG.

|                          |                          |
|--------------------------|--------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum |
|--------------------------|--------------------------|

OBSERVATIONS

|  |               |                    |          |
|--|---------------|--------------------|----------|
| * Liver<br>[ Eosinophilic Focus TGLS = 3-5 ]           |               | Eosinophilic Focus | Moderate |
| * Lymph Node, Mediastinal                              |               | Pigmentation       | Minimal  |
| * Pituitary Gland<br>[ Adenoma TGLS = 4-1 ]            | Pars Distalis | Adenoma            |          |
| * Stomach, Forestomach<br>[ Inflammation TGLS = 6-12 ] |               | Inflammation       | Moderate |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 82

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-082

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                    |
| * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Ovary                    |
| * Parathyroid Gland       | * Salivary Glands           | * Skin                   | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    |                          |                            |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                                     |                |                      |          |
|-------------------------------------|----------------|----------------------|----------|
| * Adrenal Cortex                    |                | Leukemia Mononuclear |          |
| * Bone Marrow                       |                | Hyperplasia          | Mild     |
| * Heart                             |                | Cardiomyopathy       | Minimal  |
| * Kidney                            |                | Nephropathy          | Minimal  |
| * Liver                             |                | Basophilic Focus     | Mild     |
|                                     |                | Leukemia Mononuclear |          |
| [ Basophilic Focus TGLS = 4-5 ]     |                |                      |          |
| [ Leukemia Mononuclear TGLS = 5-5 ] |                |                      |          |
| * Lymph Node, Mandibular            |                | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal           |                | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 7-5 ] |                |                      |          |
| * Lymph Node, Mesenteric            |                | Leukemia Mononuclear |          |
| * Mammary Gland                     |                | Fibroadenoma         | Multiple |
| [ Fibroadenoma TGLS = 1,2-12,13 ]   |                |                      |          |
| * Nose                              |                | Foreign Body         | Mild     |
|                                     | Respirat Epith | Hyperplasia          | Mild     |
|                                     |                | Inflammation         | Mild     |
| * Pancreas                          | Acinus         | Atrophy              | Minimal  |
| * Pituitary Gland                   | Pars Distalis  | Adenoma              |          |
| [ Adenoma TGLS = 6-1 ]              |                |                      |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 82

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-082

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-14 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 83

TRT#: 5

SEX: Female

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-083

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Ovary                     |
| * Pancreas               | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                                  |                |                        |          |
|----------------------------------|----------------|------------------------|----------|
| * Adrenal Cortex                 |                | Cytoplasmic Alteration | Moderate |
| * Kidney                         |                | Nephropathy            | Minimal  |
| * Liver                          |                | Basophilic Focus       | Mild     |
|                                  |                | Clear Cell Focus       | Minimal  |
|                                  |                | Mixed Cell Focus       | Mild     |
| [ Mixed Cell Focus TGLS = 6-15 ] |                |                        |          |
| * Lymph Node, Mediastinal        |                | Pigmentation           | Minimal  |
| * Mammary Gland                  |                | Fibroadenoma           |          |
|                                  |                | Galactocele            | Mild     |
| [ Fibroadenoma TGLS = 2-14 ]     |                |                        |          |
| Mesentery                        | Fat            | Necrosis               | Mild     |
| [ Necrosis TGLS = 3-13 ]         |                |                        |          |
| * Nose                           | Respirat Epith | Hyperplasia            | Minimal  |
|                                  |                | Inflammation           | Mild     |
| * Pituitary Gland                | Pars Distalis  | Adenoma                |          |
|                                  | Pars Distalis  | Hyperplasia            | Mild     |
| [ Adenoma TGLS = 5-1 ]           |                |                        |          |
| Zymbal's Gland                   |                | Adenoma                |          |
| [ Adenoma TGLS = 4-12 ]          |                |                        |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 83

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-083

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 84

TRT#: 5

SEX: Female

DAY ON TEST: 686

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-084

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                          |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                  |
| * Clitoral Gland          | * Esophagus                 | * Heart                  | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic     | * Lung                   |
| * Lymph Node, Bronchial   | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Nose                   |
| * Ovary                   | * Pancreas                  | * Parathyroid Gland      | * Salivary Glands        |
| * Skin                    | * Thyroid Gland             | Tooth                    | * Trachea                |
| * Uterus                  |                             |                          |                          |

MISSING

|          |          |
|----------|----------|
| * Larynx | * Thymus |
|----------|----------|

AUTO PRECLUDES DIAG.

|                          |                          |                            |                   |
|--------------------------|--------------------------|----------------------------|-------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Pituitary Gland |
| * Urinary Bladder        |                          |                            |                   |

OBSERVATIONS

|                               |                           |                       |
|-------------------------------|---------------------------|-----------------------|
| * Adrenal Cortex              | Hemorrhage                | Mild                  |
| * Bone Marrow                 | Hemorrhage                | Marked                |
| * Kidney                      | Nephropathy               | Minimal               |
| * Liver                       | Vacuolization Cytoplasmic | Moderate              |
| * Lymph Node, Mandibular      | Hyperplasia               | Plasma Cell, Moderate |
| * Mammary Gland               | Galactocele               | Minimal               |
| * Spleen                      | Pigmentation              | Marked                |
| * Stomach, Forestomach        | Hyperkeratosis            | Mild                  |
| [ Hyperkeratosis TGLS = 5-4 ] |                           |                       |
| * Stomach, Glandular          | Necrosis                  | Mild                  |
|                               | Pigmentation              | Mild                  |
| [ Necrosis TGLS = 6-4 ]       |                           |                       |
| [ Pigmentation TGLS = 6-4 ]   |                           |                       |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 85

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-085

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Ovary                  | * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

MISSING

\* Clitoral Gland

OBSERVATIONS

|                                |                |                           |          |
|--------------------------------|----------------|---------------------------|----------|
| * Kidney                       |                | Nephropathy               | Mild     |
| * Liver                        |                | Basophilic Focus          | Minimal  |
|                                |                | Hemorrhage                | Minimal  |
|                                |                | Vacuolization Cytoplasmic | Mild     |
| * Lymph Node, Mediastinal      |                | Hemorrhage                | Minimal  |
|                                |                | Pigmentation              | Mild     |
| * Mammary Gland                |                | Fibroadenoma              |          |
|                                |                | Galactocele               | Mild     |
| [ Fibroadenoma TGLS = 1-9,12 ] |                |                           |          |
| * Nose                         | Respirat Epith | Hyperplasia               | Minimal  |
|                                |                | Inflammation              | Minimal  |
| * Pituitary Gland              | Pars Distalis  | Adenoma                   | Multiple |
|                                | Pars Distalis  | Hyperplasia               | Mild     |

[ Adenoma TGLS = 2-1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 86

TRT#: 5

SEX: Female

DAY ON TEST: 654

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-086

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Nose                    |
| * Ovary                     | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

OBSERVATIONS

|  |               |                           |               |
|--|---------------|---------------------------|---------------|
| * Adrenal Cortex                         |               | Vacuolization Cytoplasmic | Moderate      |
| * Adrenal Medulla                        |               | Hyperplasia               | Mild          |
| * Bone Marrow                            |               | Leukemia Mononuclear      |               |
| * Clitoral Gland                         |               | Inflammation              | Moderate      |
| [ Inflammation TGLS = 7-13 ]             |               |                           |               |
| * Kidney                                 |               | Nephropathy               | Minimal       |
|  |               | Pigmentation              | Minimal       |
| * Liver                                  |               | Leukemia Mononuclear      |               |
|  |               | Vacuolization Cytoplasmic | Moderate      |
| [ Vacuolization Cytoplasmic TGLS = 3-5 ] |               |                           |               |
| * Lung                                   |               | Inflammation              | Chronic, Mild |
|  |               | Leukemia Mononuclear      |               |
| * Lymph Node, Mediastinal                |               | Pigmentation              | Mild          |
| * Lymph Node, Mesenteric                 |               | Amyloid Deposition        | Moderate      |
| * Mammary Gland                          |               | Hyperplasia               | Mild          |
| Mesentery                                | Fat           | Necrosis                  | Mild          |
| [ Necrosis TGLS = 6-12 ]                 |               |                           |               |
| * Pancreas                               | Acinus        | Atrophy                   | Minimal       |
| * Pituitary Gland                        | Pars Distalis | Adenoma                   |               |
|  |               | Leukemia Mononuclear      |               |
| [ Adenoma TGLS = 4-1 ]                   |               |                           |               |
| * Spleen                                 |               | Leukemia Mononuclear      |               |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 86

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 654

**DOSE:** CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-086

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 1,2-5 ]

\* Stomach, Forestomach

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 87

TRT#: 5

DOSE: CONTROL

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 727

HISTO: 90-5201-087

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                    |
| * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mesenteric | * Nose                     |
| * Ovary                   | * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          |
| * Thymus                  | * Thyroid Gland             | * Trachea                | * Urinary Bladder          |

MISSING

|                         |                          |
|-------------------------|--------------------------|
| * Lymph Node, Bronchial | * Lymph Node, Mandibular |
|-------------------------|--------------------------|

OBSERVATIONS

|  |               |                           |                  |
|--|---------------|---------------------------|------------------|
| * Adrenal Cortex                           |               | Vacuolization Cytoplasmic | Moderate         |
| * Bone Marrow                              |               | Leukemia Mononuclear      |                  |
| * Heart                                    |               | Leukemia Mononuclear      |                  |
| * Kidney                                   |               | Nephropathy               | Minimal          |
| * Liver                                    |               | Leukemia Mononuclear      |                  |
| [ Leukemia Mononuclear TGLS = 6-5 ]        |               |                           |                  |
| * Lung                                     |               | Leukemia Mononuclear      |                  |
| * Lymph Node, Mediastinal                  |               | Hemorrhage                | Mild             |
|  |               | Infiltration Cellular     | Histiocyte, Mild |
| * Mammary Gland                            |               | Fibroadenoma              | Multiple         |
| Note: Leukemia affects Mammary gland also. |               |                           |                  |
| [ Fibroadenoma TGLS = 1-12,2-9 ]           |               |                           |                  |
| Mesentery                                  | Fat           | Necrosis                  | Moderate         |
| [ Necrosis TGLS = 9-15 ]                   |               |                           |                  |
| * Pituitary Gland                          | Pars Distalis | Hyperplasia               | Moderate         |
| [ Hyperplasia TGLS = 7-1 ]                 |               |                           |                  |
| * Skin                                     |               | Leukemia Mononuclear      |                  |
| * Spleen                                   |               | Leukemia Mononuclear      |                  |
| [ Leukemia Mononuclear TGLS = 3-5,4,5-13 ] |               |                           |                  |
| * Stomach, Forestomach                     |               | Hyperkeratosis            | Moderate         |
|  |               | Hyperplasia               | Moderate         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                      |  |   |  |
|----------------------|--|---|--|
| <b>ANIMAL ID:</b> 87 | <b>TRT#:</b> 5<br><b>DOSE:</b> CONTROL | <b>SEX:</b> Female<br><b>DISP:</b> Moribund Sacrifice | <b>DAY ON TEST:</b> 727<br><b>HISTO:</b> 90-5201-087 |
|----------------------|--|---|--|

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                       |                      |        |
|-----------------------|----------------------|--------|
| [ Ulcer TGLS = 10-4 ] | Leukemia Mononuclear |        |
| * Stomach, Glandular  | Ulcer                | Marked |
| * Uterus              | Leukemia Mononuclear |        |
|                       | Hydrometra           | Mild   |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 88

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-088

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Bone Marrow              |
| * Brain                   | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Bronchial    |
| * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Nose                   | * Ovary                    |
| * Pancreas                | * Parathyroid Gland         | * Salivary Glands        | * Skin                     |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |

OBSERVATIONS

|                           |                              |                           |         |
|---------------------------|------------------------------|---------------------------|---------|
| * Adrenal Cortex          |                              | Vacuolization Cytoplasmic | Minimal |
| * Clitoral Gland          |                              | Hyperplasia               | Mild    |
|                           |                              | Inflammation              | Mild    |
|                           | [ Hyperplasia TGLS = 5-9 ]   |                           |         |
|                           | [ Inflammation TGLS = 5-9 ]  |                           |         |
| * Heart                   |                              | Cardiomyopathy            | Minimal |
| * Kidney                  |                              | Nephropathy               | Mild    |
| * Liver                   |                              | Clear Cell Focus          | Minimal |
|                           |                              | Mixed Cell Focus          | Mild    |
| * Lymph Node, Mediastinal |                              | Pigmentation              | Minimal |
| * Mammary Gland           |                              | Fibroadenoma              |         |
|                           | [ Fibroadenoma TGLS = 2-12 ] |                           |         |
| * Pituitary Gland         | Pars Distalis                | Adenoma                   |         |
|                           | [ Adenoma TGLS = 3-1 ]       |                           |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 89

TRT#: 5

SEX: Female

DAY ON TEST: 704

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-089

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                      |                          |                          |                           |
|----------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Medulla    | * Blood Vessel           | * Bone                   | * Clitoral Gland          |
| * Esophagus          | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Islets, Pancreatic | * Nose                   | * Parathyroid Gland      | * Salivary Glands         |
| * Skin               | * Stomach, Forestomach   | * Thyroid Gland          | * Trachea                 |
| * Uterus             |                          |                          |                           |

AUTO PRECLUDES DIAG.

- \* Intestine Small, Ileum

OBSERVATIONS

- |                                     |                      |         |
|-------------------------------------|----------------------|---------|
| * Adrenal Cortex                    | Leukemia Mononuclear |         |
| * Bone Marrow                       | Leukemia Mononuclear |         |
| * Brain                             | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 7-1 ] |                      |         |
| * Heart                             | Leukemia Mononuclear |         |
| * Intestine Small, Duodenum         | Leukemia Mononuclear |         |
| * Intestine Small, Jejunum          | Leukemia Mononuclear |         |
| * Kidney                            | Leukemia Mononuclear |         |
|                                     | Nephropathy          | Minimal |
| * Larynx                            | Leukemia Mononuclear |         |
| * Liver                             | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 5-5 ] |                      |         |
| * Lung                              | Leukemia Mononuclear |         |
| * Lymph Node, Bronchial             | Leukemia Mononuclear |         |
| * Lymph Node, Mandibular            | Leukemia Mononuclear |         |
| * Lymph Node, Mediastinal           | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 2-5 ] |                      |         |
| * Lymph Node, Mesenteric            | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 8-8 ] |                      |         |
| * Mammary Gland                     | Carcinoma            |         |
| [ Carcinoma TGLS = 1-12 ]           |                      |         |
| * Ovary                             | Leukemia Mononuclear |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:34

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 89

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 704

**DOSE:** CONTROL

**DISP:** Natural Death

**HISTO:** 90-5201-089

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                       |        |                      |      |
|---------------------------------------|--------|----------------------|------|
| * Pancreas                            | Acinus | Atrophy              | Mild |
| * Pituitary Gland                     |        | Leukemia Mononuclear |      |
| * Spleen                              |        | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 3,4-5 ] |        |                      |      |
| * Stomach, Glandular                  |        | Leukemia Mononuclear |      |
| * Thymus                              |        | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 6-2 ]   |        |                      |      |
| * Urinary Bladder                     |        | Leukemia Mononuclear |      |

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 90

TRT#: 5

SEX: Female

DAY ON TEST: 683

DOSE: CONTROL

DISP: Moribund Sacrifice

HISTO: 90-5201-090

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Clitoral Gland            |
| * Esophagus              | * Heart                    | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Kidney                    |
| * Larynx                 | * Lymph Node, Mandibular   | * Nose                    | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Stomach, Forestomach    | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|   |               |   |                          |
|---|---------------|---|--------------------------|
| * Adrenal Cortex                                |               | Degeneration<br>Vacuolization Cytoplasmic | Cystic, Mild<br>Moderate |
| * Bone Marrow                                   |               | Hyperplasia                               | Moderate                 |
| * Brain   |               | Hemorrhage                                | Minimal                  |
| Ear   | External Ear  | Sarcoma                                   |                          |
| [ Sarcoma TGLS = 1-12 ]                         |               |   |                          |
| * Intestine Large, Cecum                        |               | Inflammation                              | Moderate                 |
| * Intestine Large, Colon                        |               | Inflammation                              | Mild                     |
| * Liver   |               | Histiocytic Sarcoma                       |                          |
| [ Histiocytic Sarcoma TGLS = 4-5 ]              |               |   |                          |
| * Lung  |               | Histiocytic Sarcoma                       |                          |
| [ Histiocytic Sarcoma TGLS = 2-6 ]              |               |   |                          |
| * Lymph Node, Mediastinal                       |               | Pigmentation                              | Mild                     |
| * Lymph Node, Mesenteric                        |               | Inflammation                              | Mild                     |
| * Mammary Gland                                 |               | Hyperplasia                               | Mild                     |
| * Ovary   | Corpus Luteum | Hyperplasia                               | Moderate                 |
| * Pancreas                                      |               | Histiocytic Sarcoma                       |                          |
| * Pituitary Gland                               | Pars Distalis | Adenoma                                   |                          |
| [ Adenoma TGLS = 6,7-1 ]                        |               |   |                          |
| * Spleen  |               | Hematopoietic Cell Proliferation          | Moderate                 |
| [ Hematopoietic Cell Proliferation TGLS = 3-5 ] |               |   |                          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 90

**TRT#:** 5  
**DOSE:** CONTROL

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 683  
**HISTO:** 90-5201-090

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Stomach, Glandular  
[ Necrosis TGLS = 9-4 ]

Necrosis

Mild

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 91

TRT#: 5

SEX: Female

DAY ON TEST: 18

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-091

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                        |                   |                          |                           |
|------------------------|-------------------|--------------------------|---------------------------|
| * Adrenal Medulla      | * Blood Vessel    | * Bone                   | * Brain                   |
| * Clitoral Gland       | * Esophagus       | * Heart                  | * Intestine Large, Rectum |
| * Islets, Pancreatic   | * Liver           | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Mammary Gland        | * Ovary           | * Pancreas               | * Parathyroid Gland       |
| * Pituitary Gland      | * Salivary Glands | * Skin                   | * Spleen                  |
| * Stomach, Forestomach | * Thyroid Gland   | * Trachea                | * Urinary Bladder         |
| * Uterus               |                   |                          |                           |

AUTO PRECLUDES DIAG.

- |                            |                          |                             |                          |
|----------------------------|--------------------------|-----------------------------|--------------------------|
| * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum |                          |                             |                          |

OBSERVATIONS

- |                          |                |                |                |
|--------------------------|----------------|----------------|----------------|
| * Adrenal Cortex         |                | Hemorrhage     | Marked         |
| * Bone Marrow            |                | Hemorrhage     | Moderate       |
| * Kidney                 |                | Mineralization | Minimal        |
| * Larynx                 | Respirat Epith | Metaplasia     | Squamous, Mild |
| * Lung                   |                | Congestion     | Mild           |
| * Lymph Node, Bronchial  |                | Atrophy        | Mild           |
| * Lymph Node, Mesenteric |                | Atrophy        | Moderate       |
| * Nose                   |                | Inflammation   | Minimal        |
| * Stomach, Glandular     |                | Necrosis       | Mild           |
| [ Necrosis TGLS = 11-4 ] |                |                |                |
| * Thymus                 |                | Atrophy        | Marked         |
| [ Atrophy TGLS = 10-2 ]  |                |                |                |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 92

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-092

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

OBSERVATIONS

|                           |               |                  |          |
|---------------------------|---------------|------------------|----------|
| * Heart                   |               | Cardiomyopathy   | Minimal  |
| * Kidney                  |               | Nephropathy      | Minimal  |
| * Liver                   |               | Basophilic Focus | Minimal  |
| * Lymph Node, Bronchial   |               | Hemorrhage       | Mild     |
| * Lymph Node, Mediastinal |               | Hemorrhage       | Mild     |
| * Ovary                   |               | Cyst             | Mild     |
| * Pancreas                | Acinus        | Atrophy          | Mild     |
| * Pituitary Gland         | Pars Distalis | Hyperplasia      | Moderate |

[ Hyperplasia TGLS = 2-1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 93

TRT#: 5

SEX: Female

DAY ON TEST: 665

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-093

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                             |                      |
|--------------------------|---------------------------|-----------------------------|----------------------|
| * Blood Vessel           | * Bone                    | * Brain                     | * Esophagus          |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic |
| * Larynx                 | * Lymph Node, Bronchial   | * Lymph Node, Mandibular    | * Nose               |
| * Ovary                  | * Pancreas                | * Parathyroid Gland         | * Pituitary Gland    |
| * Salivary Glands        | * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular |
| * Thymus                 | * Thyroid Gland           | * Trachea                   | * Urinary Bladder    |
| * Uterus                 |                           |                             |                      |

MISSING

- \* Mammary Gland

AUTO PRECLUDES DIAG.

- |                          |                          |                            |
|--------------------------|--------------------------|----------------------------|
| * Intestine Large, Cecum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|--------------------------|----------------------------|

OBSERVATIONS

- |                                     |                      |          |
|-------------------------------------|----------------------|----------|
| * Adrenal Cortex                    | Leukemia Mononuclear |          |
| * Adrenal Medulla                   | Hyperplasia          | Mild     |
| * Bone Marrow                       | Leukemia Mononuclear |          |
| * Clitoral Gland                    | Inflammation         | Moderate |
| * Heart                             | Leukemia Mononuclear |          |
| * Kidney                            | Pigmentation         | Moderate |
| [ Pigmentation TGLS = 4-7 ]         |                      |          |
| * Liver                             | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ] |                      |          |
| * Lung                              | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal           | Hemorrhage           | Moderate |
| * Lymph Node, Mesenteric            | Hemorrhage           | Moderate |
| * Spleen                            | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-5 ] |                      |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 94

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-094

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Ovary                     | * Pancreas               |
| * Salivary Glands          | * Skin                    | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                                   |                |                           |          |
|-----------------------------------|----------------|---------------------------|----------|
| * Adrenal Cortex                  |                | Vacuolization Cytoplasmic | Minimal  |
| * Clitoral Gland                  |                | Hyperplasia               | Mild     |
|                                   |                | Inflammation              | Mild     |
| [ Hyperplasia TGLS = 1-9 ]        |                |                           |          |
| [ Inflammation TGLS = 1-9 ]       |                |                           |          |
| * Kidney                          |                | Nephropathy               | Minimal  |
| * Liver                           |                | Basophilic Focus          | Minimal  |
| * Lymph Node, Mediastinal         |                | Hemorrhage                | Mild     |
| * Mammary Gland                   |                | Fibroadenoma              | Multiple |
| [ Fibroadenoma TGLS = 2-12,3-13 ] |                |                           |          |
| * Nose                            |                | Foreign Body              | Minimal  |
|                                   | Respirat Epith | Hyperplasia               | Minimal  |
|                                   |                | Inflammation              | Minimal  |
| * Parathyroid Gland               |                | Hyperplasia               | Mild     |
| * Pituitary Gland                 | Pars Distalis  | Adenoma                   |          |
| [ Adenoma TGLS = 4-1 ]            |                |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 95

TRT#: 5

SEX: Female

DAY ON TEST: 735

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-095

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Nose                    |
| * Ovary                     | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                            |               |                |                  |
|----------------------------|---------------|----------------|------------------|
| * Kidney                   |               | Mineralization | Minimal          |
|                            |               | Nephropathy    | Minimal          |
| * Liver                    |               | Inflammation   | Chronic, Minimal |
| * Lymph Node, Mediastinal  |               | Hemorrhage     | Minimal          |
|                            |               | Pigmentation   | Minimal          |
| * Lymph Node, Mesenteric   |               | Hemorrhage     | Mild             |
| * Mammary Gland            |               | Hyperplasia    | Minimal          |
| * Pancreas                 | Acinus        | Atrophy        | Minimal          |
| * Parathyroid Gland        |               | Hyperplasia    | Minimal          |
| [ Hyperplasia TGLS = 1-3 ] |               |                |                  |
| * Pituitary Gland          | Pars Distalis | Adenoma        |                  |
| [ Adenoma TGLS = 2-1 ]     |               |                |                  |
| * Thyroid Gland            | C Cell        | Hyperplasia    | Minimal          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 96

TRT#: 5

SEX: Female

DAY ON TEST: 734

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-096

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Nose                   | * Ovary                    | * Pancreas                |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   |                           |

OBSERVATIONS

|                                   |               |                           |                  |
|-----------------------------------|---------------|---------------------------|------------------|
| * Kidney                          |               | Mineralization            | Minimal          |
|                                   |               | Nephropathy               | Minimal          |
| * Liver                           |               | Angiectasis               | Minimal          |
|                                   |               | Vacuolization Cytoplasmic | Minimal          |
| * Lung                            |               | Infiltration Cellular     | Histiocyte, Mild |
| * Lymph Node, Mediastinal         |               | Pigmentation              | Mild             |
| Mesentery                         | Fat           | Necrosis                  | Mild             |
| [ Necrosis TGLS = 1-13,2-12,3-8 ] |               |                           |                  |
| * Pituitary Gland                 | Pars Distalis | Adenoma                   | Multiple         |
| [ Adenoma TGLS = 4-1 ]            |               |                           |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 97

TRT#: 5

SEX: Female

DAY ON TEST: 486

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-097

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                          |                           |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel           | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland         | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic     | * Lymph Node, Bronchial   |
| * Lymph Node, Mandibular    | * Lymph Node, Mesenteric | * Mammary Gland          | * Nose                    |
| * Ovary                     | * Parathyroid Gland      | * Pituitary Gland        | * Salivary Glands         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach   | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                | * Urinary Bladder         |
| * Uterus                    |                          |                          |                           |

**AUTO PRECLUDES DIAG.**

\* Intestine Small, Jejunum

**OBSERVATIONS**

|                           |        |                |                   |
|---------------------------|--------|----------------|-------------------|
| * Kidney                  |        | Mineralization | Mild              |
| * Larynx                  |        | Metaplasia     | Squamous, Minimal |
| * Liver                   |        | Congestion     | Mild              |
| * Lung                    |        | Congestion     | Mild              |
| * Lymph Node, Mediastinal |        | Hemorrhage     | Mild              |
| * Pancreas                | Acinus | Atrophy        | Mild              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 98

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-098

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Nose                      |
| * Ovary                  | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

OBSERVATIONS

|                                 |               |                           |          |
|---------------------------------|---------------|---------------------------|----------|
| * Adrenal Cortex                |               | Vacuolization Cytoplasmic | Minimal  |
| * Kidney                        |               | Nephropathy               | Mild     |
| * Liver                         |               | Angiectasis               | Minimal  |
|                                 |               | Basophilic Focus          | Mild     |
|                                 |               | Vacuolization Cytoplasmic | Minimal  |
| [ Basophilic Focus TGLS = 4-5 ] |               |                           |          |
| * Lymph Node, Mediastinal       |               | Pigmentation              | Minimal  |
| * Lymph Node, Mesenteric        |               | Hemorrhage                | Minimal  |
| * Mammary Gland                 |               | Fibroadenoma              |          |
| [ Fibroadenoma TGLS = 1-12 ]    |               |                           |          |
| Mesentery                       | Fat           | Necrosis                  | Moderate |
| [ Necrosis TGLS = 2-13 ]        |               |                           |          |
| * Pancreas                      | Acinus        | Atrophy                   | Mild     |
| * Pituitary Gland               | Pars Distalis | Adenoma                   |          |
| [ Adenoma TGLS = 3-1 ]          |               |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 99

TRT#: 5

SEX: Female

DAY ON TEST: 736

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 90-5201-099

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Spleen                 |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         | * Uterus                    |                          |

OBSERVATIONS

|                             |               |                           |              |
|-----------------------------|---------------|---------------------------|--------------|
| * Adrenal Cortex            |               | Degeneration              | Cystic, Mild |
|                             |               | Vacuolization Cytoplasmic | Minimal      |
| * Heart                     |               | Cardiomyopathy            | Minimal      |
| * Kidney                    |               | Nephropathy               | Minimal      |
| * Liver                     |               | Basophilic Focus          | Minimal      |
|                             |               | Vacuolization Cytoplasmic | Minimal      |
| * Lymph Node, Bronchial     |               | Pigmentation              | Minimal      |
| * Lymph Node, Mediastinal   |               | Hemorrhage                | Mild         |
|                             |               | Pigmentation              | Mild         |
| [ Hemorrhage TGLS = 3-5 ]   |               |                           |              |
| * Mammary Gland             |               | Hyperplasia               | Mild         |
| [ Hyperplasia TGLS = 1-12 ] |               |                           |              |
| * Pancreas                  | Acinus        | Atrophy                   | Minimal      |
| * Pituitary Gland           | Pars Distalis | Adenoma                   |              |
| [ Adenoma TGLS = 2-1 ]      |               |                           |              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 100

TRT#: 5

SEX: Female

DAY ON TEST: 318

DOSE: CONTROL

DISP: Natural Death

HISTO: 90-5201-100

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                          |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Clitoral Gland         |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic     | * Kidney                 |
| * Liver                   | * Lung                      | * Lymph Node, Mesenteric | * Mammary Gland          |
| * Ovary                   | * Pancreas                  | * Parathyroid Gland      | * Salivary Glands        |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                 |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                 |

MISSING

\* Larynx

AUTO PRECLUDES DIAG.

\* Intestine Small, Ileum                      \* Intestine Small, Jejunum

OBSERVATIONS

|                           |               |   |          |
|---------------------------|---------------|---|----------|
| * Adrenal Cortex          |               | Lymphoma Malignant                      |          |
|                           |               | Vacuolization Cytoplasmic               | Moderate |
| * Adrenal Medulla         |               | Lymphoma Malignant                      |          |
| * Bone Marrow             |               | Hyperplasia                             | Moderate |
| Lymph Node                | Inguinal      | Lymphoma Malignant                      |          |
|                           | Lumbar        | Lymphoma Malignant                      |          |
|                           | Renal         | Lymphoma Malignant                      |          |
|                           |               | [ Lymphoma Malignant TGLS = 1-17 ]      |          |
|                           |               | [ Lymphoma Malignant TGLS = 7-16,8-13 ] |          |
|                           |               | [ Lymphoma Malignant TGLS = 5-14,6-15 ] |          |
| * Lymph Node, Bronchial   |               | Lymphoma Malignant                      |          |
| * Lymph Node, Mandibular  |               | Lymphoma Malignant                      |          |
|                           |               | [ Lymphoma Malignant TGLS = 2-18 ]      |          |
| * Lymph Node, Mediastinal |               | Hemorrhage                              | Mild     |
|                           |               | Lymphoma Malignant                      |          |
|                           |               | [ Lymphoma Malignant TGLS = 3-12 ]      |          |
| * Nose                    |               | Congestion                              | Moderate |
| * Pituitary Gland         | Pars Distalis | Cyst                                    | Moderate |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 100

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:** 318

**DOSE:** CONTROL

**DISP:** Natural Death

**HISTO:** 90-5201-100

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Cyst TGLS = 9-1 ]

\* Spleen

Hematopoietic Cell Proliferation

Mild

[ Hematopoietic Cell Proliferation TGLS = 4-5 ]

---

**PRIMARY CAUSE OF DEATH**

-

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Animal Note: All tissues are markedly autolytic.

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 151

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-151

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Liver                     |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Ovary                     |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                           |                |                       |                  |
|---------------------------|----------------|-----------------------|------------------|
| * Adrenal Cortex          |                | Hyperplasia           | Minimal          |
| * Kidney                  |                | Nephropathy           | Minimal          |
| * Larynx                  |                | Infiltration Cellular | Lymphocyte, Mild |
| * Lymph Node, Bronchial   |                | Hemorrhage            | Minimal          |
|                           |                | Pigmentation          | Mild             |
| * Lymph Node, Mediastinal |                | Pigmentation          | Minimal          |
| * Mammary Gland           |                | Hyperplasia           | Mild             |
| * Nose                    | Nasolacrim Dct | Inflammation          | Moderate         |
| * Pancreas                | Acinus         | Atrophy               | Minimal          |
| * Pituitary Gland         | Pars Distalis  | Angiectasis           | Moderate         |

[ Angiectasis TGLS = 2-1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 152

TRT#: 6

SEX: Female

DAY ON TEST: 462

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-152

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                          |                            |
|--------------------------|---------------------------|--------------------------|----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla         | * Blood Vessel           | * Bone Marrow              |
| * Brain                  | * Clitoral Gland          | * Esophagus              | * Heart                    |
| * Intestine Large, Cecum | * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Larynx                  | * Lung                   | * Lymph Node, Bronchial    |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric  | * Mammary Gland          | * Nose                     |
| * Ovary                  | * Pancreas                | * Parathyroid Gland      | * Salivary Glands          |
| * Skin                   | * Stomach, Forestomach    | * Thymus                 | * Thyroid Gland            |
| * Trachea                | * Urinary Bladder         |                          |                            |

AUTO PRECLUDES DIAG.

- |                          |                             |                      |
|--------------------------|-----------------------------|----------------------|
| * Intestine Large, Colon | * Intestine Small, Duodenum | * Stomach, Glandular |
|--------------------------|-----------------------------|----------------------|

OBSERVATIONS

- |                           |               |   |          |
|---------------------------|---------------|---|----------|
| * Bone                    | Turbinate     | Hyperostosis                                    | Moderate |
|                           |               | Hyperostosis                                    | Moderate |
| * Kidney                  |               | Mineralization                                  | Minimal  |
|                           |               | Nephropathy                                     | Minimal  |
| * Liver                   |               | Basophilic Focus                                | Minimal  |
|                           |               | Vacuolization Cytoplasmic                       | Minimal  |
| * Lymph Node, Mediastinal |               | Hemorrhage                                      | Mild     |
| * Pituitary Gland         | Pars Distalis | Angiectasis                                     | Minimal  |
| * Spleen                  |               | Hematopoietic Cell Proliferation                | Mild     |
|                           |               | [ Hematopoietic Cell Proliferation TGLS = 1-5 ] |          |
| * Uterus                  | Endometrium   | Sarcoma Stromal                                 |          |
|                           |               | [ Sarcoma Stromal TGLS = 3-12 ]                 |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 153

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-153

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

MISSING

|                         |          |
|-------------------------|----------|
| * Lymph Node, Bronchial | * Thymus |
|-------------------------|----------|

OBSERVATIONS

|                           |               |                        |                        |
|---------------------------|---------------|------------------------|------------------------|
| * Adrenal Cortex          |               | Cytoplasmic Alteration | Minimal                |
|                           |               | Hemorrhage             | Minimal                |
| * Kidney                  |               | Nephropathy            | Mild                   |
| * Liver                   |               | Leukemia Mononuclear   |                        |
| * Lung                    |               | Inflammation           | Granulomatous, Minimal |
| * Lymph Node, Mandibular  |               | Hemorrhage             | Mild                   |
| * Lymph Node, Mediastinal |               | Hemorrhage             | Moderate               |
|                           |               | Pigmentation           | Minimal                |
| * Lymph Node, Mesenteric  |               | Hemorrhage             | Minimal                |
| * Mammary Gland           |               | Hyperplasia            | Minimal                |
| * Pituitary Gland         | Pars Distalis | Adenoma                |                        |
| [ Adenoma TGLS = 2-1 ]    |               |                        |                        |
| * Spleen                  |               | Leukemia Mononuclear   |                        |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 154

TRT#: 6

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-154

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Clitoral Gland           |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Bronchial    |
| * Lymph Node, Mandibular  | * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |

OBSERVATIONS

|                                      |                |   |                |
|--------------------------------------|----------------|---|----------------|
| * Adrenal Cortex                     |                | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Mild           |
| * Adrenal Medulla                    |                | Leukemia Mononuclear                              |                |
| * Bone Marrow                        |                | Leukemia Mononuclear                              |                |
| * Kidney                             |                | Nephropathy<br>Pigmentation                       | Mild<br>Mild   |
| * Liver                              |                | Leukemia Mononuclear                              |                |
| * Lymph Node, Mediastinal            |                | Leukemia Mononuclear                              |                |
| [ Leukemia Mononuclear TGLS = 4-5 ]  |                |   |                |
| * Lymph Node, Mesenteric             |                | Leukemia Mononuclear                              |                |
| * Mammary Gland                      |                | Fibroadenoma<br>Galactocele                       | Moderate       |
| [ Fibroadenoma TGLS = 1-13 ]         |                |   |                |
| [ Galactocele TGLS = 1-13 ]          |                |   |                |
| * Nose                               |                | Inflammation                                      | Mild           |
|                                      | Respirat Epith | Metaplasia  | Squamous, Mild |
| * Ovary                              |                | Cyst  | Moderate       |
| [ Cyst TGLS = 3-9 ]                  |                |   |                |
| * Pituitary Gland                    | Pars Distalis  | Leukemia Mononuclear                              |                |
| [ Leukemia Mononuclear TGLS = 5-1 ]  |                |   |                |
| * Spleen                             |                | Leukemia Mononuclear                              |                |
| [ Leukemia Mononuclear TGLS = 2-12 ] |                |   |                |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 154

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-154

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 155

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-155

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular |
| * Nose                     | * Ovary                   | * Pancreas                  | * Parathyroid Gland      |
| * Salivary Glands          | * Skin                    | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

**MISSING**

\* Thymus

**OBSERVATIONS**

|                                      |       |                      |          |
|--------------------------------------|-------|----------------------|----------|
| * Adrenal Cortex                     |       | Hyperplasia          | Moderate |
| * Bone Marrow                        |       | Leukemia Mononuclear |          |
| * Kidney                             |       | Nephropathy          | Minimal  |
| * Liver                              |       | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 4-5 ]  |       |                      |          |
| * Lung                               |       | Hemorrhage           | Mild     |
| [ Hemorrhage TGLS = 2-13 ]           |       | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-12 ] |       |                      |          |
| Lymph Node                           | Renal | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 5-14 ] |       |                      |          |
| * Lymph Node, Bronchial              |       | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal            |       | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 7-5 ]  |       |                      |          |
| * Lymph Node, Mesenteric             |       | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 8-8 ]  |       |                      |          |
| * Mammary Gland                      |       | Fibroadenoma         |          |
|                                      |       | Hyperplasia          | Minimal  |

Note: Leukemia involves the mammary gland.  
 [ Fibroadenoma TGLS = 1-12 ]

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:34

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 155

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-155

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |               |                      |          |
|-------------------------------------|---------------|----------------------|----------|
| * Pituitary Gland                   | Pars Distalis | Hemorrhage           | Minimal  |
|                                     | Pars Distalis | Hyperplasia          | Mild     |
|                                     | Pars Distalis | Pigmentation         | Mild     |
| [ Hyperplasia TGLS = 6-1 ]          |               |                      |          |
| * Spleen                            |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ] |               |                      |          |
| * Stomach, Forestomach              |               | Ulcer                | Moderate |
| * Stomach, Glandular                |               | Ulcer                | Moderate |
| [ Ulcer TGLS = 9-4 ]                |               |                      |          |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 156

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-156

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Ovary                   | * Pancreas                  | * Parathyroid Gland      |
| * Salivary Glands          | * Skin                    | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

MISSING

- \* Lymph Node, Bronchial

OBSERVATIONS

- |                   |  |                        |          |
|-------------------|--|------------------------|----------|
| * Adrenal Cortex  |  | Angiectasis            | Mild     |
|                   |  | Cytoplasmic Alteration | Mild     |
| * Clitoral Gland  |  | Hyperplasia            | Mild     |
|                   |  | Inflammation           | Moderate |
|                   | [ Hyperplasia TGLS = 4-13 ]                |                        |          |
|                   | [ Inflammation TGLS = 4-13 ]               |                        |          |
| * Kidney          |  | Nephropathy            | Minimal  |
| * Liver           |  | Basophilic Focus       | Minimal  |
| * Pituitary Gland | Pars Distalis                              | Adenoma                |          |
|                   | Note: TGLs = 3-1 = no corresponding lesion |                        |          |
|                   | [ Adenoma TGLS = 1-1 ]                     |                        |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 157

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-157

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Mandibular    |
| * Lymph Node, Mesenteric | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |  |                            |                  |
|---------------------------|--|----------------------------|------------------|
| * Bone                    |  | Hyperostosis               | Moderate         |
| * Kidney                  |  | Nephropathy                | Mild             |
|                           | [ Nephropathy TGLS = 2-7 ]                 |                            |                  |
| * Larynx                  |  | Inflammation               | Minimal          |
| * Liver                   |  | Basophilic Focus           | Minimal          |
|                           |  | Hepatodiaphragmatic Nodule | Moderate         |
|                           | [ Hepatodiaphragmatic Nodule TGLS = 3-12 ] |                            |                  |
| * Lung                    | Alveolar Epith                             | Hyperplasia                | Mild             |
|                           |  | Infiltration Cellular      | Histiocyte, Mild |
| * Lymph Node, Mediastinal |  | Pigmentation               | Minimal          |
| * Mammary Gland           |  | Hyperplasia                | Mild             |
|                           | [ Hyperplasia TGLS = 1-8 ]                 |                            |                  |
| * Nose                    |  | Inflammation               | Minimal          |
| * Pituitary Gland         | Pars Distalis                              | Adenoma                    |                  |
|                           | Pars Distalis                              | Hyperplasia                | Mild             |
|                           | [ Adenoma TGLS = 4-1 ]                     |                            |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 158

TRT#: 6

SEX: Female

DAY ON TEST: 646

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-158

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Bone Marrow            | * Brain                    |
| * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Kidney                    | * Larynx                 | * Lung                     |
| * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Mammary Gland            |
| * Nose                    | * Ovary                     | * Parathyroid Gland      | * Pituitary Gland          |
| * Salivary Glands         | * Skin                      | * Trachea                | * Urinary Bladder          |
| * Uterus                  |                             |                          |                            |

OBSERVATIONS

|   |        |                      |          |
|---|--------|----------------------|----------|
| * Adrenal Cortex                                |        | Leukemia Mononuclear |          |
| * Adrenal Medulla                               |        | Leukemia Mononuclear |          |
| * Heart   |        | Leukemia Mononuclear |          |
| * Liver   |        | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 5-5 ]             |        |                      |          |
| * Lymph Node, Bronchial                         |        | Leukemia Mononuclear |          |
| * Pancreas                                      | Acinus | Atrophy              | Mild     |
| * Spleen  |        | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-5;3-5,12;6-12 ] |        |                      |          |
| * Stomach, Forestomach                          |        | Ulcer                | Marked   |
| * Stomach, Glandular                            |        | Ulcer                | Moderate |
| * Thymus  |        | Leukemia Mononuclear |          |
| * Thyroid Gland                                 | C Cell | Hyperplasia          | Mild     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 159

TRT#: 6

SEX: Female

DAY ON TEST: 475

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-159

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Mammary Gland          | * Nose                     | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

**OBSERVATIONS**

|                        |               |                       |                  |
|------------------------|---------------|-----------------------|------------------|
| * Brain                |               | Hydrocephalus         | Mild             |
| * Kidney               |               | Nephropathy           | Mild             |
| * Larynx               |               | Infiltration Cellular | Lymphocyte, Mild |
| * Liver                |               | Basophilic Focus      | Minimal          |
| * Pituitary Gland      | Pars Distalis | Adenoma               |                  |
| [ Adenoma TGLS = 1-1 ] |               |                       |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 160

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-160

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mediastinal  | * Lymph Node, Mesenteric  |
| * Nose                      | * Ovary                  | * Parathyroid Gland        | * Salivary Glands         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Trachea                | * Urinary Bladder          | * Uterus                  |

OBSERVATIONS

|                         |   |                            |                  |
|-------------------------|---|----------------------------|------------------|
| * Kidney                |   | Nephropathy                | Minimal          |
| * Larynx                |   | Infiltration Cellular      | Lymphocyte, Mild |
| * Liver                 |   | Basophilic Focus           | Mild             |
|                         | [ Hepatodiaphragmatic Nodule TGLS = 1-5 ] | Hepatodiaphragmatic Nodule | Moderate         |
| * Lymph Node, Bronchial |   | Pigmentation               | Minimal          |
| * Mammary Gland         |   | Galactocele                | Mild             |
|                         |   | Hyperplasia                | Mild             |
| * Pancreas              | Acinus                                    | Atrophy                    | Minimal          |
| * Pituitary Gland       | Pars Distalis                             | Adenoma                    |                  |
|                         | Pars Intermed                             | Angiectasis                | Moderate         |
|                         | [ Adenoma TGLS = 3-1 ]                    |                            |                  |
| * Thyroid Gland         | C Cell                                    | Hyperplasia                | Minimal          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 161

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-161

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

OBSERVATIONS

|                              |                |                       |                  |
|------------------------------|----------------|-----------------------|------------------|
| * Clitoral Gland             |                | Inflammation          | Mild             |
| * Kidney                     |                | Nephropathy           | Minimal          |
| * Liver                      |                | Basophilic Focus      | Minimal          |
| * Lung                       | Alveolar Epith | Hyperplasia           | Minimal          |
|                              |                | Infiltration Cellular | Histiocyte, Mild |
| * Lymph Node, Bronchial      |                | Hemorrhage            | Moderate         |
|                              |                | Pigmentation          | Mild             |
| * Lymph Node, Mediastinal    |                | Hemorrhage            | Mild             |
|                              |                | Pigmentation          | Mild             |
| * Mammary Gland              |                | Fibroadenoma          |                  |
| [ Fibroadenoma TGLS = 3-12 ] |                |                       |                  |
| * Ovary                      |                | Cyst                  | Mild             |
| * Pituitary Gland            | Pars Distalis  | Angiectasis           | Minimal          |
| [ Angiectasis TGLS = 2-1 ]   |                |                       |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 162

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-162

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Bone Marrow            | * Brain                    |
| * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Nose                   | * Ovary                    |
| * Parathyroid Gland       | * Salivary Glands           | * Skin                   | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    |                          |                            |

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

|                                      |               |                      |                       |
|--------------------------------------|---------------|----------------------|-----------------------|
| * Adrenal Cortex                     |               | Degeneration         | Cystic, Mild          |
|                                      |               | Leukemia Mononuclear |                       |
| * Adrenal Medulla                    |               | Leukemia Mononuclear |                       |
| * Heart                              |               | Leukemia Mononuclear |                       |
| * Kidney                             |               | Leukemia Mononuclear |                       |
|                                      |               | Mineralization       | Minimal               |
|                                      |               | Nephropathy          | Minimal               |
| * Liver                              |               | Basophilic Focus     | Minimal               |
|                                      |               | Leukemia Mononuclear |                       |
| * Lung                               |               | Leukemia Mononuclear |                       |
| * Lymph Node, Mandibular             |               | Hyperplasia          | Plasma Cell, Moderate |
| * Lymph Node, Mediastinal            |               | Pigmentation         | Mild                  |
| * Lymph Node, Mesenteric             |               | Leukemia Mononuclear |                       |
| * Mammary Gland                      |               | Fibroadenoma         |                       |
| [ Fibroadenoma TGLS = 5-13 ]         |               |                      |                       |
| * Pancreas                           | Acinus        | Atrophy              | Mild                  |
| * Pituitary Gland                    | Pars Distalis | Hyperplasia          | Minimal               |
| [ Hyperplasia TGLS = 2-1 ]           |               |                      |                       |
| * Spleen                             |               | Leukemia Mononuclear |                       |
| [ Leukemia Mononuclear TGLS = 3-12 ] |               |                      |                       |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 162

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-162

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 163

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-163

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mesenteric  |
| * Ovary                     | * Pancreas               | * Parathyroid Gland        | * Salivary Glands         |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          | * Uterus                  |

OBSERVATIONS

|   |                |                           |                   |
|---|----------------|---------------------------|-------------------|
| * Kidney<br>[ Nephropathy TGLS = 4-7 ]      |                | Nephropathy               | Moderate          |
| * Liver                                     |                | Eosinophilic Focus        | Moderate          |
|   |                | Vacuolization Cytoplasmic | Mild              |
| * Lymph Node, Mandibular                    |                | Hyperplasia               | Plasma Cell, Mild |
| * Lymph Node, Mediastinal                   |                | Pigmentation              | Mild              |
| * Mammary Gland                             |                | Hyperplasia               | Mild              |
| * Nose                                      | Respirat Epith | Hyperplasia               | Mild              |
|   |                | Inflammation              | Moderate          |
| * Pituitary Gland<br>[ Adenoma TGLS = 1-1 ] | Pars Distalis  | Adenoma                   |                   |
| * Skin<br>[ Fibrosarcoma TGLS = 3-12 ]      | Subcut Tiss    | Fibrosarcoma              |                   |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 164

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-164

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Nose                      | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Trachea                  | * Urinary Bladder         | * Uterus                    |                          |

OBSERVATIONS

|                              |               |                            |                  |
|------------------------------|---------------|----------------------------|------------------|
| * Adrenal Cortex             |               | Degeneration               | Cystic, Mild     |
| * Bone Marrow                |               | Myelostromal Proliferation | Marked           |
| * Kidney                     |               | Nephropathy                | Minimal          |
| * Liver                      |               | Basophilic Focus           | Minimal          |
|                              |               | Clear Cell Focus           | Minimal          |
|                              |               | Inflammation               | Chronic, Minimal |
| * Lymph Node, Bronchial      |               | Hemorrhage                 | Minimal          |
| * Lymph Node, Mesenteric     |               | Hemorrhage                 | Moderate         |
| * Mammary Gland              |               | Fibroadenoma               |                  |
| [ Fibroadenoma TGLS = 1-12 ] |               |                            |                  |
| * Pituitary Gland            | Pars Distalis | Angiectasis                | Mild             |
| [ Angiectasis TGLS = 2-1 ]   |               |                            |                  |
| * Thyroid Gland              | C Cell        | Hyperplasia                | Minimal          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 165

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-165

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      |
| * Ovary                  | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

MISSING

\* Larynx

OBSERVATIONS

|  |               |                  |         |
|--|---------------|------------------|---------|
| * Adrenal Cortex   |               | Hemorrhage       | Minimal |
| * Kidney   |               | Nephropathy      | Minimal |
| * Larynx   |               |                  |         |
| Note: The larynx is present, but the correct area for evaluation was not obtained. |               |                  |         |
| * Liver  |               | Basophilic Focus | Minimal |
| Note: The nodule which was present represents a developmental malformation.        |               |                  |         |
| * Lymph Node, Mediastinal  |               | Hemorrhage       | Minimal |
| * Mammary Gland  |               | Galactoceles     | Mild    |
|  |               | Hyperplasia      | Minimal |
| [ Galactoceles TGLS = 1-8 ]  |               |                  |         |
| [ Hyperplasia TGLS = 1-8 ]   |               |                  |         |
| * Pancreas   | Acinus        | Atrophy          | Mild    |
| * Pituitary Gland  | Pars Distalis | Angiectasis      | Mild    |
| [ Angiectasis TGLS = 2-1 ]   |               |                  |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 166

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 686

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-166

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                           |                             |                            |
|--------------------------|---------------------------|-----------------------------|----------------------------|
| * Blood Vessel           | * Bone                    | * Clitoral Gland            | * Esophagus                |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Larynx                  | * Lymph Node, Mandibular    | * Pancreas                 |
| * Parathyroid Gland      | * Salivary Glands         | * Skin                      | * Stomach, Forestomach     |
| * Stomach, Glandular     | * Thymus                  | * Thyroid Gland             | * Trachea                  |
| * Urinary Bladder        |                           |                             |                            |

**OBSERVATIONS**

|                                       |               |                      |         |
|---------------------------------------|---------------|----------------------|---------|
| * Adrenal Cortex                      |               | Leukemia Mononuclear |         |
| * Adrenal Medulla                     |               | Leukemia Mononuclear |         |
| * Bone Marrow                         |               | Leukemia Mononuclear |         |
| * Brain                               |               | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 3,4-1 ] |               |                      |         |
| * Heart                               |               | Leukemia Mononuclear |         |
| * Intestine Large, Cecum              |               | Leukemia Mononuclear |         |
| * Intestine Small, Ileum              |               | Leukemia Mononuclear |         |
| * Kidney                              |               | Leukemia Mononuclear |         |
| * Liver                               |               | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 2-5 ]   |               |                      |         |
| * Lung                                |               | Leukemia Mononuclear |         |
| Lymph Node                            | Pancreatic    | Leukemia Mononuclear |         |
| * Lymph Node, Bronchial               |               | Leukemia Mononuclear |         |
| * Lymph Node, Mediastinal             |               | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 5-5 ]   |               |                      |         |
| * Lymph Node, Mesenteric              |               | Leukemia Mononuclear |         |
| * Mammary Gland                       |               | Hyperplasia          | Mild    |
| * Nose                                |               | Leukemia Mononuclear |         |
| * Ovary                               |               | Leukemia Mononuclear |         |
| * Pituitary Gland                     | Pars Distalis | Angiectasis          | Minimal |
| * Spleen                              |               | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 1-5 ]   |               |                      |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 166

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 686

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-166

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Uterus

Hydrometra

Mild

[ Hydrometra TGLS = 6-9 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 167

TRT#: 6

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-167

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      |
| * Ovary                  | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

MISSING

\* Larynx

OBSERVATIONS

|   |               |                      |          |
|---|---------------|----------------------|----------|
| * Bone Marrow   |               | Hyperplasia          | Mild     |
| * Kidney  |               | Nephropathy          | Mild     |
| * Larynx  |               |                      |          |
| Note: Larynx is present, but the correct section for evaluation was not obtained. |               |                      |          |
| * Liver   |               | Basophilic Focus     | Minimal  |
|   |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ]   |               |                      |          |
| * Lymph Node, Mediastinal   |               | Leukemia Mononuclear |          |
| * Mammary Gland   |               | Adenoma              |          |
|   |               | Carcinoma            |          |
|   |               | Galactocele          | Moderate |
| [ Carcinoma TGLS = 1-12; 2-13 ]   |               |                      |          |
| * Pancreas  | Acinus        | Atrophy              | Mild     |
| * Pituitary Gland   | Pars Distalis | Adenoma              |          |
| [ Adenoma TGLS = 4-1 ]  |               |                      |          |
| * Spleen  |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 5-5 ]   |               |                      |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 168

TRT#: 6

SEX: Female

DAY ON TEST: 601

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-168

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                          |                            |
|--------------------------|---------------------------|--------------------------|----------------------------|
| * Adrenal Medulla        | * Blood Vessel            | * Bone                   | * Brain                    |
| * Clitoral Gland         | * Esophagus               | * Heart                  | * Intestine Large, Cecum   |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Larynx                  | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Mammary Gland          | * Nose                    | * Ovary                  | * Pancreas                 |
| * Salivary Glands        | * Skin                    | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Thymus                 | * Thyroid Gland           | * Trachea                | * Urinary Bladder          |
| Vagina                   |                           |                          |                            |

MISSING

- \* Parathyroid Gland

AUTO PRECLUDES DIAG.

- \* Intestine Small, Duodenum

OBSERVATIONS

- |  |               |                                  |                                     |
|--|---------------|----------------------------------|-------------------------------------|
| * Adrenal Cortex   |               | Hemorrhage                       | Mild                                |
| * Bone Marrow  |               | Hyperplasia                      | Moderate                            |
| * Kidney   |               | Mineralization                   | Minimal                             |
| * Liver  |               | Basophilic Focus                 | Moderate                            |
|  |               | Vacuolization Cytoplasmic        | Mild                                |
| [ Basophilic Focus TGLS = 3-5 ]  |               |                                  |                                     |
| [ Vacuolization Cytoplasmic TGLS = 3-5 ]   |               |                                  |                                     |
| * Lung   | Mediastinum   | Sarcoma                          | Metastatic (Uncertain Primary Site) |
|  |               | Sarcoma                          | Metastatic (Uncertain Primary Site) |
| Note: The primary site of the sarcoma is assumed to be the skeletal muscle on rib in the thorax. |               |                                  |                                     |
| [ Sarcoma TGLS = 4-6,13 ]  |               |                                  |                                     |
| * Lymph Node, Bronchial  |               | Hyperplasia                      | Lymphoid, Mild                      |
| * Lymph Node, Mediastinal  |               | Hemorrhage                       | Mild                                |
|  |               | Pigmentation                     | Mild                                |
| * Pituitary Gland  | Pars Distalis | Hyperplasia                      | Mild                                |
| [ Hyperplasia TGLS = 5-1 ]   |               |                                  |                                     |
| * Spleen   |               | Hematopoietic Cell Proliferation | Moderate                            |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 168

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 601

**DOSE:** 75 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-168

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Uterus

Polyp Stromal

[ Polyp Stromal TGLS = 1-9 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 169

TRT#: 6

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-169

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mediastinal  | * Nose                    | * Ovary                     | * Pancreas               |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                              |               |                  |                   |
|------------------------------|---------------|------------------|-------------------|
| * Bone                       |               | Hyperostosis     | Moderate          |
| * Heart                      | Endocardium   | Hyperplasia      | Moderate          |
| * Kidney                     |               | Nephropathy      | Mild              |
| * Liver                      |               | Basophilic Focus | Minimal           |
|                              |               | Inflammation     | Chronic, Moderate |
| * Lymph Node, Mandibular     |               | Hyperplasia      | Plasma Cell, Mild |
| * Lymph Node, Mesenteric     |               | Hemorrhage       | Mild              |
| * Mammary Gland              |               | Adenoma          |                   |
|                              |               | Fibroadenoma     |                   |
|                              |               | Galactocele      | Moderate          |
| [ Adenoma TGLS = 4-8 ]       |               |                  |                   |
| [ Fibroadenoma TGLS = 2-12 ] |               |                  |                   |
| [ Galactocele TGLS = 4-8 ]   |               |                  |                   |
| * Pituitary Gland            | Pars Distalis | Adenoma          |                   |
| [ Adenoma TGLS = 3-1 ]       |               |                  |                   |
| * Spleen                     |               | Hemorrhage       | Moderate          |
|                              |               | Pigmentation     | Mild              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 170

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-170

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Ovary                  | * Parathyroid Gland        | * Salivary Glands         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |
| * Uterus                    |                          |                            |                           |

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

|                           |               |                           |         |
|---------------------------|---------------|---------------------------|---------|
| * Kidney                  |               | Nephropathy               | Minimal |
| * Liver                   |               | Basophilic Focus          | Mild    |
|                           |               | Vacuolization Cytoplasmic | Minimal |
| * Lymph Node, Mediastinal |               | Hemorrhage                | Mild    |
|                           |               | Pigmentation              | Mild    |
| * Nose                    |               | Inflammation              | Minimal |
| * Pancreas                | Acinus        | Atrophy                   | Mild    |
| * Pituitary Gland         | Pars Distalis | Hyperplasia               | Mild    |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 171

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-171

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Ovary                    | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                           |                |                           |                |
|---------------------------|----------------|---------------------------|----------------|
| * Adrenal Cortex          |                | Hyperplasia               | Mild           |
| * Kidney                  |                | Nephropathy               | Minimal        |
| * Larynx                  |                | Inflammation              | Mild           |
| * Liver                   | Respirat Epith | Metaplasia                | Squamous, Mild |
|                           |                | Basophilic Focus          | Minimal        |
|                           |                | Vacuolization Cytoplasmic | Minimal        |
| * Lymph Node, Mediastinal |                | Hemorrhage                | Minimal        |
|                           |                | Pigmentation              | Minimal        |
| * Pancreas                | Acinus         | Atrophy                   | Mild           |
| * Pituitary Gland         | Pars Distalis  | Angiectasis               | Moderate       |

[ Angiectasis TGLS = 1-1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 172

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-172

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Brain                   | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

OBSERVATIONS

|                            |               |                      |         |
|----------------------------|---------------|----------------------|---------|
| * Clitoral Gland           |               | Inflammation         | Mild    |
| * Heart                    |               | Cardiomyopathy       | Minimal |
| * Kidney                   |               | Nephropathy          | Minimal |
| * Liver                    |               | Basophilic Focus     | Minimal |
|                            |               | Leukemia Mononuclear |         |
| * Lymph Node, Bronchial    |               | Hemorrhage           | Minimal |
|                            |               | Pigmentation         | Minimal |
| * Lymph Node, Mediastinal  |               | Pigmentation         | Mild    |
| * Mammary Gland            |               | Hyperplasia          | Mild    |
| [ Hyperplasia TGLS = 1-8 ] |               |                      |         |
| * Pancreas                 | Acinus        | Atrophy              | Minimal |
| * Pituitary Gland          | Pars Distalis | Adenoma              |         |
| [ Adenoma TGLS = 2-1 ]     |               |                      |         |
| * Spleen                   |               | Leukemia Mononuclear |         |
| * Thyroid Gland            | C Cell        | Hyperplasia          | Mild    |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 173

TRT#: 6

DOSE: 75 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 610

HISTO: 90-5201-173

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                          |                           |                             |
|--------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel           | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland         | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Islets, Pancreatic     | * Larynx                 | * Lung                    | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Nose                   | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands        | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thyroid Gland          | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                          |                           |                             |

AUTO PRECLUDES DIAG.

- |                          |                            |
|--------------------------|----------------------------|
| * Intestine Small, Ileum | * Intestine Small, Jejunum |
|--------------------------|----------------------------|

OBSERVATIONS

- |                                   |               |                    |          |
|-----------------------------------|---------------|--------------------|----------|
| * Adrenal Cortex                  |               | Adenoma            |          |
| * Kidney                          |               | Nephropathy        | Minimal  |
| * Liver                           |               | Eosinophilic Focus | Mild     |
| [ Eosinophilic Focus TGLS = 3-5 ] |               |                    |          |
| * Lymph Node, Mediastinal         |               | Pigmentation       | Mild     |
| * Lymph Node, Mesenteric          |               | Hemorrhage         | Mild     |
| * Mammary Gland                   |               | Galactocele        | Mild     |
| * Pituitary Gland                 | Pars Distalis | Degeneration       | Marked   |
|                                   | Pars Distalis | Hemorrhage         | Marked   |
|                                   | Pars Distalis | Pigmentation       | Moderate |
| [ Degeneration TGLS = 2-1 ]       |               |                    |          |
| [ Hemorrhage TGLS = 2-1 ]         |               |                    |          |
| * Skin                            | Subcut Tiss   | Fibrosis           | Mild     |
| * Thymus                          |               | Lymphoma Malignant |          |
| [ Lymphoma Malignant TGLS = 1-2 ] |               |                    |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 174

TRT#: 6

SEX: Female

DAY ON TEST: 412

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-174

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                      |                          |                           |                            |
|----------------------|--------------------------|---------------------------|----------------------------|
| * Blood Vessel       | * Bone                   | * Brain                   | * Clitoral Gland           |
| * Esophagus          | * Intestine Large, Cecum | * Intestine Large, Rectum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Larynx                 | * Lymph Node, Mandibular  | * Mammary Gland            |
| * Nose               | * Parathyroid Gland      | * Pituitary Gland         | * Salivary Glands          |
| * Thyroid Gland      | * Trachea                |                           |                            |

OBSERVATIONS

- |  |  |   |          |
|--|--|---|----------|
| * Adrenal Cortex                             |  | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Moderate |
| * Adrenal Medulla                            |  | Leukemia Mononuclear                              |          |
| * Bone Marrow                                |  | Leukemia Mononuclear                              |          |
| * Heart                                      |  | Leukemia Mononuclear                              |          |
| * Intestine Large, Colon                     |  | Leukemia Mononuclear                              |          |
| * Intestine Small, Duodenum                  |  | Leukemia Mononuclear                              |          |
| * Intestine Small, Ileum                     |  | Leukemia Mononuclear                              |          |
| * Kidney                                     |  | Leukemia Mononuclear<br>Mineralization            | Minimal  |
| * Liver                                      |  | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 3-5,12;4,5-5 ] |  |   |          |
| * Lung                                       |  | Leukemia Mononuclear                              |          |
| * Lymph Node, Bronchial                      |  | Leukemia Mononuclear                              |          |
| * Lymph Node, Mediastinal                    |  | Leukemia Mononuclear                              |          |
| * Lymph Node, Mesenteric                     |  | Leukemia Mononuclear                              |          |
| Mesentery                                    |  | Leukemia Mononuclear<br>Necrosis                  | Moderate |
| Fat  |  |   |          |
| [ Leukemia Mononuclear TGLS = 8-8 ]          |  |   |          |
| [ Necrosis TGLS = 8-8 ]                      |  |   |          |
| * Ovary                                      |  | Leukemia Mononuclear                              |          |
| * Pancreas                                   |  | Leukemia Mononuclear                              |          |
| Skeletal Muscle                              |  | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 1-13 ]         |  |   |          |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:34

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 174

**TRT#:** 6

**DOSE:** 75 PPM

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:** 412

**HISTO:** 90-5201-174

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

|                                     |                      |
|-------------------------------------|----------------------|
| * Skin                              | Leukemia Mononuclear |
| * Spleen                            | Leukemia Mononuclear |
| [ Leukemia Mononuclear TGLS = 2-5 ] |                      |
| * Stomach, Forestomach              | Leukemia Mononuclear |
| * Stomach, Glandular                | Leukemia Mononuclear |
| * Thymus                            | Leukemia Mononuclear |
| [ Leukemia Mononuclear TGLS = 6-2 ] |                      |
| * Urinary Bladder                   | Leukemia Mononuclear |
| * Uterus                            | Leukemia Mononuclear |

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**PRIMARY CAUSE OF DEATH**                    -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 175

TRT#: 6

SEX: Female

DAY ON TEST: 506

DOSE: 75 PPM

DISP: Natural Death

HISTO: 90-5201-175

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                          |                           |                             |
|----------------------------|--------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex           | * Adrenal Medulla        | * Blood Vessel            | * Bone                      |
| * Brain                    | * Clitoral Gland         | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Larynx                  | * Lymph Node, Mandibular    |
| * Lymph Node, Mesenteric   | * Mammary Gland          | * Nose                    | * Ovary                     |
| * Pancreas                 | * Parathyroid Gland      | * Salivary Glands         | * Skin                      |
| * Stomach, Forestomach     | * Stomach, Glandular     | * Thyroid Gland           | * Trachea                   |
| * Uterus                   |                          |                           |                             |

MISSING

- |                         |                           |          |
|-------------------------|---------------------------|----------|
| * Lymph Node, Bronchial | * Lymph Node, Mediastinal | * Thymus |
|-------------------------|---------------------------|----------|

AUTO PRECLUDES DIAG.

- \* Intestine Small, Ileum

INSUFFICIENT TISSUE

- \* Pituitary Gland

OBSERVATIONS

- |  |                       |         |
|--|-----------------------|---------|
| * Bone Marrow                              | Hyperplasia           | Mild    |
| * Brain                                    |                       |         |
| Note: TGLs = 3-1 = no corresponding lesion |                       |         |
| * Kidney                                   | Mineralization        | Minimal |
| * Liver                                    | Leukemia Granulocytic |         |
| [ Leukemia Granulocytic TGLS = 5-5 ]       |                       |         |
| * Lung                                     | Leukemia Granulocytic |         |
| * Spleen                                   | Leukemia Granulocytic |         |
| [ Leukemia Granulocytic TGLS = 1-12;2-5 ]  |                       |         |
| * Urinary Bladder                          | Leukemia Granulocytic |         |
| [ Leukemia Granulocytic TGLS = 4-7 ]       |                       |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 176

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-176

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     | * Ovary                   |
| * Parathyroid Gland         | * Salivary Glands        | * Spleen                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thymus                 | * Trachea                  | * Urinary Bladder         |
| * Uterus                    |                          |                            |                           |

OBSERVATIONS

|   |                   |                           |          |
|---|-------------------|---------------------------|----------|
| * Kidney                                  |                   | Nephropathy               | Minimal  |
| * Liver                                   |                   | Basophilic Focus          | Mild     |
|   |                   | Clear Cell Focus          | Mild     |
|   |                   | Vacuolization Cytoplasmic | Mild     |
| [ Vacuolization Cytoplasmic TGLS = 4-12 ] |                   |                           |          |
| * Lymph Node, Mandibular                  |                   | Hemorrhage                | Moderate |
| Mesentery                                 | Fat               | Necrosis                  | Mild     |
| [ Necrosis TGLS = 2-13 ]                  |                   |                           |          |
| * Pancreas                                | Acinus            | Atrophy                   | Mild     |
| * Pituitary Gland                         | Pars Distalis     | Adenoma                   | Multiple |
|   | Pars Distalis     | Cyst                      | Mild     |
| * Skin                                    | Subcut Tiss       | Lipoma                    |          |
| [ Lipoma TGLS = 1-15 ]                    |                   |                           |          |
| * Thyroid Gland                           | Bilateral, C Cell | Adenoma                   |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 177

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 668

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-177

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mesenteric   | * Ovary                   | * Parathyroid Gland         | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

**OBSERVATIONS**

|                                   |               |                       |                     |
|-----------------------------------|---------------|-----------------------|---------------------|
| * Adrenal Cortex                  |               | Angiectasis           | Mild                |
|                                   |               | Hyperplasia           | Minimal             |
| * Bone Marrow                     |               | Hyperplasia           | Mild                |
| * Kidney                          |               | Mineralization        | Minimal             |
| * Liver                           |               | Basophilic Focus      | Mild                |
| * Lung                            |               | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mandibular          |               | Hyperplasia           | Plasma Cell, Mild   |
| * Lymph Node, Mediastinal         |               | Pigmentation          | Mild                |
| * Mammary Gland                   |               | Fibroadenoma          |                     |
| [ Fibroadenoma TGLS = 1-12;2-13 ] |               |                       |                     |
| * Nose                            | Glands        | Adenoma               |                     |
| * Pancreas                        | Acinus        | Atrophy               | Minimal             |
| * Pituitary Gland                 | Pars Distalis | Adenoma               |                     |
| [ Adenoma TGLS = 5-1 ]            |               |                       |                     |

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 178

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-178

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

OBSERVATIONS

- |                           |                              |                    |                 |
|---------------------------|------------------------------|--------------------|-----------------|
| * Bone Marrow             |                              | Hyperplasia        | Mast Cell, Mild |
| * Kidney                  |                              | Nephropathy        | Mild            |
|                           |                              | Pigmentation       | Mild            |
| * Liver                   |                              | Basophilic Focus   | Mild            |
|                           |                              | Eosinophilic Focus | Minimal         |
| * Lymph Node, Bronchial   |                              | Pigmentation       | Minimal         |
| * Lymph Node, Mediastinal |                              | Pigmentation       | Minimal         |
| * Pituitary Gland         | Pars Distalis                | Adenoma            | Multiple        |
|                           | Pars Distalis                | Hyperplasia        | Moderate        |
|                           | [ Adenoma TGLS = 1,2-1 ]     |                    |                 |
|                           | [ Hyperplasia TGLS = 1,2-1 ] |                    |                 |
| * Uterus                  |                              | Hydrometra         | Mild            |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 179

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 719

**DOSE:** 75 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-179

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mediastinal  | * Ovary                   | * Pancreas                  | * Salivary Glands        |
| * Skin                     | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

**OBSERVATIONS**

|                          |                                       |                         |                              |
|--------------------------|---------------------------------------|-------------------------|------------------------------|
| * Adrenal Cortex         |                                       | Leukemia Mononuclear    |                              |
| * Adrenal Medulla        |                                       | Leukemia Mononuclear    |                              |
|                          | Bilateral                             | Pheochromocytoma Benign |                              |
| * Bone                   |                                       | Fibrous Osteodystrophy  | Moderate                     |
| * Bone Marrow            |                                       | Hyperplasia             | Mild                         |
| * Brain                  |                                       | Carcinoma               | Metastatic (Pituitary Gland) |
|                          | [ Carcinoma TGLS = 3-1 ]              |                         |                              |
| * Heart                  |                                       | Leukemia Mononuclear    |                              |
| * Kidney                 |                                       | Nephropathy             | Marked                       |
|                          | [ Nephropathy TGLS = 6-7 ]            |                         |                              |
| * Liver                  |                                       | Leukemia Mononuclear    |                              |
|                          | [ Leukemia Mononuclear TGLS = 1,4-5 ] |                         |                              |
| * Lung                   |                                       | Leukemia Mononuclear    |                              |
| * Lymph Node, Mandibular |                                       | Leukemia Mononuclear    |                              |
| * Lymph Node, Mesenteric |                                       | Leukemia Mononuclear    |                              |
| * Mammary Gland          |                                       | Hyperplasia             | Mild                         |
| * Nose                   | Respirat Epith                        | Hyperplasia             | Mild                         |
|                          |                                       | Inflammation            | Moderate                     |
| * Parathyroid Gland      |                                       | Hyperplasia             | Moderate                     |
| * Pituitary Gland        | Pars Distalis                         | Carcinoma               |                              |
|                          | [ Carcinoma TGLS = 2-1 ]              |                         |                              |
| * Spleen                 |                                       | Leukemia Mononuclear    |                              |
|                          | [ Leukemia Mononuclear TGLS = 5-5 ]   |                         |                              |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 179

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 719

**DOSE:** 75 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-179

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Stomach, Forestomach

Ulcer

Marked

\* Stomach, Glandular

Ulcer

Mild

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 180

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-180

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                          |                           |                          |
|----------------------------|--------------------------|---------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel           | * Bone                    | * Bone Marrow            |
| * Brain                    | * Clitoral Gland         | * Esophagus               | * Heart                  |
| * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Ovary                   | * Pancreas               |
| * Parathyroid Gland        | * Salivary Glands        | * Skin                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                 | * Thyroid Gland           | * Trachea                |
| * Urinary Bladder          | * Uterus                 |                           |                          |

MISSING

- |          |                         |
|----------|-------------------------|
| * Larynx | * Lymph Node, Bronchial |
|----------|-------------------------|

OBSERVATIONS

- |   |                |                              |                   |
|---|----------------|------------------------------|-------------------|
| * Adrenal Cortex  |                | Degeneration                 | Cystic, Mild      |
| * Intestine Small, Duodenum   |                | Leukemia Mononuclear         |                   |
| * Kidney  |                | Cyst                         | Moderate          |
|   |                | Nephropathy                  | Mild              |
|   |                | Pigmentation                 | Minimal           |
| * Larynx  |                |                              |                   |
| Note: The larynx is present, but the correct section for evaluation was not obtained. |                |                              |                   |
| * Liver   |                | Basophilic Focus             | Minimal           |
|   |                | Leukemia Mononuclear         |                   |
| * Lung  |                | Alveolar/Bronchiolar Adenoma | Multiple          |
|   | Alveolar Epith | Hyperplasia                  | Mild              |
| [ Alveolar/Bronchiolar Adenoma TGLS = 3-6 ]   |                |                              |                   |
| * Lymph Node, Mandibular  |                | Hyperplasia                  | Plasma Cell, Mild |
| * Lymph Node, Mediastinal   |                | Leukemia Mononuclear         |                   |
| * Lymph Node, Mesenteric  |                | Leukemia Mononuclear         |                   |
| * Mammary Gland   |                | Hyperplasia                  | Mild              |
| * Nose  | Respirat Epith | Hyperplasia                  | Mild              |
|   |                | Inflammation                 | Mild              |
| * Pituitary Gland   | Pars Distalis  | Angiectasis                  | Moderate          |
|   | Pars Distalis  | Hyperplasia                  | Minimal           |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 180

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-180

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Angiectasis TGLS = 2-1 ]

\* Spleen

Leukemia Mononuclear

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 181

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-181

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Ovary                  | * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

OBSERVATIONS

|                            |                |                  |          |
|----------------------------|----------------|------------------|----------|
| * Bone                     |                | Hyperostosis     | Moderate |
| * Kidney                   |                | Nephropathy      | Mild     |
| * Liver                    |                | Basophilic Focus | Minimal  |
| * Lymph Node, Mandibular   |                | Ectasia          | Moderate |
| * Mammary Gland            |                | Hyperplasia      | Minimal  |
| [ Hyperplasia TGLS = 1-8 ] |                |                  |          |
| * Nose                     | Respirat Epith | Hyperplasia      | Mild     |
|                            |                | Inflammation     | Mild     |
| * Pituitary Gland          | Pars Distalis  | Adenoma          |          |
|                            | Pars Distalis  | Hyperplasia      | Mild     |
| [ Adenoma TGLS = 2-1 ]     |                |                  |          |
| [ Hyperplasia TGLS = 2-1 ] |                |                  |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 182

TRT#: 6

SEX: Female

DAY ON TEST: 647

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-182

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                            |                      |
|--------------------------|---------------------------|----------------------------|----------------------|
| * Blood Vessel           | * Bone                    | * Clitoral Gland           | * Esophagus          |
| * Intestine Large, Cecum | * Intestine Large, Rectum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lymph Node, Bronchial  | * Salivary Glands         | * Skin                     | * Thyroid Gland      |
| * Trachea                |                           |                            |                      |

MISSING

- \* Urinary Bladder

OBSERVATIONS

- |                             |            |                                      |          |
|-----------------------------|------------|--------------------------------------|----------|
| * Adrenal Cortex            |            | Hemorrhage                           | Moderate |
|                             |            | Leukemia Mononuclear                 |          |
| * Adrenal Medulla           |            | Hemorrhage                           | Moderate |
|                             |            | Leukemia Mononuclear                 |          |
|                             |            | Necrosis                             | Marked   |
| * Bone Marrow               |            | Leukemia Mononuclear                 |          |
| * Brain                     |            | Leukemia Mononuclear                 |          |
| * Heart                     |            | Leukemia Mononuclear                 |          |
| * Intestine Large, Colon    |            | Leukemia Mononuclear                 |          |
| * Intestine Small, Duodenum |            | Leukemia Mononuclear                 |          |
| * Intestine Small, Ileum    |            | Leukemia Mononuclear                 |          |
| * Kidney                    |            | Leukemia Mononuclear                 |          |
|                             |            | Nephropathy                          | Minimal  |
| * Larynx                    |            | Leukemia Mononuclear                 |          |
| * Liver                     |            | Leukemia Mononuclear                 |          |
|                             |            | [ Leukemia Mononuclear TGLS = 5-5 ]  |          |
| * Lung                      |            | Leukemia Mononuclear                 |          |
| Lymph Node                  | Pancreatic | Leukemia Mononuclear                 |          |
|                             |            | [ Leukemia Mononuclear TGLS = 2-12 ] |          |
| * Lymph Node, Mandibular    |            | Leukemia Mononuclear                 |          |
| * Lymph Node, Mediastinal   |            | Leukemia Mononuclear                 |          |
| * Lymph Node, Mesenteric    |            | Leukemia Mononuclear                 |          |
| * Mammary Gland             |            | Fibroadenoma                         |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                     |                                 |                           |
|-----------------------|---------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 182 | <b>TRT#:</b> 6      | <b>SEX:</b> Female              | <b>DAY ON TEST:</b> 647   |
|                       | <b>DOSE:</b> 75 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-182 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |               |                      |        |
|-------------------------------------|---------------|----------------------|--------|
| [ Fibroadenoma TGLS = 4-8 ]         |               |                      |        |
| * Nose                              |               | Leukemia Mononuclear |        |
| * Ovary                             |               | Leukemia Mononuclear |        |
| * Pancreas                          |               | Leukemia Mononuclear |        |
| * Parathyroid Gland                 |               | Hyperplasia          | Mild   |
| * Pituitary Gland                   | Pars Distalis | Angiectasis          | Mild   |
|                                     |               | Leukemia Mononuclear |        |
| * Spleen                            |               | Leukemia Mononuclear |        |
| [ Leukemia Mononuclear TGLS = 1-5 ] |               |                      |        |
| * Stomach, Forestomach              |               | Leukemia Mononuclear |        |
|                                     |               | Ulcer                | Marked |
| * Stomach, Glandular                |               | Leukemia Mononuclear |        |
| * Thymus                            |               | Leukemia Mononuclear |        |
| * Uterus                            |               | Polyp Stromal        |        |

Note: The polyp is necrotic.

[ Polyp Stromal TGLS = 3-9 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 183

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-183

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric    | * Nose                   | * Pancreas                 | * Salivary Glands         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |
| * Uterus                    |                          |                            |                           |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                                   |               |                           |          |
|-----------------------------------|---------------|---------------------------|----------|
| * Kidney                          |               | Nephropathy               | Minimal  |
| * Liver                           |               | Basophilic Focus          | Minimal  |
|                                   |               | Vacuolization Cytoplasmic | Minimal  |
| * Lymph Node, Bronchial           |               | Hemorrhage                | Mild     |
|                                   |               | Pigmentation              | Mild     |
| * Mammary Gland                   |               | Fibroadenoma              |          |
| [ Fibroadenoma TGLS = 1-12;2-13 ] |               |                           |          |
| * Ovary                           |               | Cyst                      | Moderate |
| [ Cyst TGLS = 3-9 ]               |               |                           |          |
| * Pituitary Gland                 | Pars Distalis | Angiectasis               | Moderate |
| [ Angiectasis TGLS = 5-1 ]        |               |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 184

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-184

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone Marrow               | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Nose                    | * Ovary                     | * Parathyroid Gland      |
| * Salivary Glands          | * Skin                    | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

MISSING

- \* Lymph Node, Bronchial

OBSERVATIONS

- |                           |                |                           |          |
|---------------------------|----------------|---------------------------|----------|
| * Adrenal Cortex          |                | Angiectasis               | Mild     |
| * Bone                    | Turbinate      | Hyperostosis              | Moderate |
|                           |                | Hyperostosis              | Marked   |
| * Kidney                  |                | Nephropathy               | Minimal  |
| * Liver                   |                | Basophilic Focus          | Minimal  |
|                           |                | Vacuolization Cytoplasmic | Minimal  |
| * Lung                    | Alveolar Epith | Hyperplasia               | Mild     |
| * Lymph Node, Mediastinal |                | Hemorrhage                | Minimal  |
|                           |                | Pigmentation              | Minimal  |
| * Mammary Gland           |                | Hyperplasia               | Minimal  |
| * Pancreas                | Acinus         | Atrophy                   | Mild     |
| * Pituitary Gland         | Pars Distalis  | Angiectasis               | Moderate |

[ Angiectasis TGLS = 2-1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 185

TRT#: 6

SEX: Female

DAY ON TEST: 636

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-185

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                             |                          |
|--------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel           | * Bone                    | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Islets, Pancreatic     | * Larynx                  | * Lymph Node, Bronchial     | * Lymph Node, Mandibular |
| * Mammary Gland          | * Pancreas                | * Parathyroid Gland         | * Salivary Glands        |
| * Skin                   | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder        |                           |                             |                          |

OBSERVATIONS

- |                                     |               |                      |          |
|-------------------------------------|---------------|----------------------|----------|
| * Adrenal Cortex                    |               | Leukemia Mononuclear |          |
| * Adrenal Medulla                   |               | Leukemia Mononuclear |          |
| * Bone Marrow                       |               | Leukemia Mononuclear |          |
| * Brain                             |               | Leukemia Mononuclear |          |
| * Clitoral Gland                    |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 1-9 ] |               |                      |          |
| * Heart                             |               | Leukemia Mononuclear |          |
| * Intestine Small, Jejunum          |               | Leukemia Mononuclear |          |
| * Kidney                            |               | Leukemia Mononuclear |          |
|                                     |               | Pigmentation         | Moderate |
| * Liver                             |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ] |               |                      |          |
| * Lung                              |               | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal           |               | Leukemia Mononuclear |          |
| * Lymph Node, Mesenteric            |               | Leukemia Mononuclear |          |
| * Nose                              |               | Leukemia Mononuclear |          |
| * Ovary                             |               | Leukemia Mononuclear |          |
| * Pituitary Gland                   | Pars Distalis | Angiectasis          | Mild     |
| * Spleen                            |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-5 ] |               |                      |          |
| * Stomach, Forestomach              |               | Hyperplasia          | Moderate |
|                                     |               | Leukemia Mononuclear |          |
| * Stomach, Glandular                |               | Leukemia Mononuclear |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 185

**TRT#:** 6  
**DOSE:** 75 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 636  
**HISTO:** 90-5201-185

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Uterus

Ulcer  
Leukemia Mononuclear

Mild

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 186

TRT#: 6

SEX: Female

DAY ON TEST: 531

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-186

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Liver                  | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     | * Parathyroid Gland       |
| * Salivary Glands           | * Skin                   | * Spleen                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 | Vagina                     |                           |

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

|                        |                |             |         |
|------------------------|----------------|-------------|---------|
| * Kidney               |                | Nephropathy | Mild    |
| * Lung                 | Alveolar Epith | Hyperplasia | Mild    |
| * Ovary                |                | Cyst        | Mild    |
| [ Cyst TGLS = 4-9 ]    |                |             |         |
| * Pancreas             | Acinus         | Atrophy     | Minimal |
| * Pituitary Gland      | Pars Distalis  | Adenoma     |         |
| [ Adenoma TGLS = 1-1 ] |                |             |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 187

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-187

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Trachea                 | * Urinary Bladder           | * Uterus                 |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |               |                                     |          |
|---------------------------|---------------|-------------------------------------|----------|
| * Bone Marrow             |               | Hyperplasia                         | Mild     |
| * Clitoral Gland          |               | Hyperplasia                         | Mild     |
| * Kidney                  | Renal Tubule  | Hyperplasia                         | Minimal  |
|                           |               | Leukemia Mononuclear                |          |
|                           |               | Mineralization                      | Minimal  |
|                           |               | Nephropathy                         | Moderate |
|                           |               | [ Leukemia Mononuclear TGLS = 4-7 ] |          |
|                           |               | [ Nephropathy TGLS = 4-7 ]          |          |
| * Liver                   |               | Basophilic Focus                    | Minimal  |
|                           |               | Leukemia Mononuclear                |          |
| * Lymph Node, Mediastinal |               | Leukemia Mononuclear                |          |
| * Mammary Gland           |               | Fibroadenoma                        |          |
|                           |               | Hyperplasia                         | Mild     |
|                           |               | [ Fibroadenoma TGLS = 1-8 ]         |          |
|                           |               | [ Hyperplasia TGLS = 1-8 ]          |          |
| * Pancreas                | Acinus        | Atrophy                             | Minimal  |
| * Pituitary Gland         | Pars Distalis | Adenoma                             | Multiple |
|                           |               | [ Adenoma TGLS = 5-1 ]              |          |
| * Skin                    | Subcut Tiss   | Sarcoma                             |          |
|                           |               | [ Sarcoma TGLS = 2-13 ]             |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:34

**First Dose M/F:** NA / NA

**Lab:** IIT

---

**ANIMAL ID:** 187

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-187

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-5,12 ]

\* Thyroid Gland

C Cell

Hyperplasia

Mild

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 188

TRT#: 6

SEX: Female

DAY ON TEST: 609

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-188

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                    |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Ovary                     | * Pancreas               | * Parathyroid Gland        |
| * Salivary Glands         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    |                          |                            |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|   |                |                            |          |
|---|----------------|----------------------------|----------|
| * Adrenal Cortex                          |                | Cytoplasmic Alteration     | Moderate |
| * Bone Marrow                             |                | Hemorrhage                 | Moderate |
| * Clitoral Gland                          |                | Inflammation               | Mild     |
| * Kidney                                  |                | Nephropathy                | Mild     |
| * Liver                                   |                | Fibrosis                   | Minimal  |
|   |                | Hepatodiaphragmatic Nodule | Marked   |
| [ Hepatodiaphragmatic Nodule TGLS = 3-5 ] |                |                            |          |
| * Lymph Node, Mediastinal                 |                | Hemorrhage                 | Mild     |
|   |                | Pigmentation               | Minimal  |
| * Mammary Gland                           |                | Fibroadenoma               | Multiple |
|   |                | Hyperplasia                | Mild     |
| [ Fibroadenoma TGLS = 1-12;2-13 ]         |                |                            |          |
| * Nose                                    | Respirat Epith | Hyperplasia                | Minimal  |
| * Pituitary Gland                         | Pars Distalis  | Angiectasis                | Marked   |
| [ Angiectasis TGLS = 4-1 ]                |                |                            |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 189

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-189

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Liver                  | * Lung                     | * Lymph Node, Bronchial   | * Lymph Node, Mandibular    |
| * Lymph Node, Mesenteric | * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

MISSING

\* Clitoral Gland

OBSERVATIONS

|                             |                |              |          |
|-----------------------------|----------------|--------------|----------|
| * Kidney                    |                | Nephropathy  | Minimal  |
|                             |                | Pigmentation | Minimal  |
| * Lymph Node, Mediastinal   |                | Hemorrhage   | Moderate |
|                             |                | Pigmentation | Moderate |
| * Mammary Gland             |                | Fibroadenoma |          |
|                             |                | Hyperplasia  | Mild     |
| [ Fibroadenoma TGLS = 2-9 ] |                |              |          |
| Mesentery                   | Fat            | Necrosis     | Moderate |
| [ Necrosis TGLS = 5-13 ]    |                |              |          |
| * Nose                      |                | Foreign Body | Minimal  |
|                             | Respirat Epith | Hyperplasia  | Mild     |
|                             |                | Inflammation | Mild     |
| * Ovary                     |                | Cyst         | Marked   |
| [ Cyst TGLS = 4-9 ]         |                |              |          |
| * Pituitary Gland           | Pars Distalis  | Adenoma      | Multiple |
|                             | Pars Intermed  | Angiectasis  | Moderate |
| [ Adenoma TGLS = 6-1 ]      |                |              |          |
| [ Angiectasis TGLS = 6-1 ]  |                |              |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 189

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-189

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 190

TRT#: 6

DOSE: 75 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-190

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Liver                     | * Lung                   | * Lymph Node, Mesenteric   | * Nose                    |
| * Ovary                     | * Pancreas               | * Parathyroid Gland        | * Salivary Glands         |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          | * Uterus                  |

MISSING

|          |                         |
|----------|-------------------------|
| * Larynx | * Lymph Node, Bronchial |
|----------|-------------------------|

OBSERVATIONS

|                                      |               |                       |                    |
|--------------------------------------|---------------|-----------------------|--------------------|
| * Kidney                             |               | Mineralization        | Mild               |
|                                      |               | Nephropathy           | Mild               |
|                                      |               | Pigmentation          | Minimal            |
| * Lymph Node, Mandibular             |               | Hyperplasia           | Plasma Cell, Mild  |
| * Lymph Node, Mediastinal            |               | Pigmentation          | Minimal            |
| * Mammary Gland                      |               | Fibroadenoma          |                    |
|                                      |               | Galactocele           | Moderate           |
|                                      |               | Infiltration Cellular | Lymphocyte, Marked |
| [ Fibroadenoma TGLS = 2-12 ]         |               |                       |                    |
| [ Galactocele TGLS = 2-12 ]          |               |                       |                    |
| [ Infiltration Cellular TGLS = 1-8 ] |               |                       |                    |
| * Pituitary Gland                    | Pars Distalis | Adenoma               |                    |
| [ Adenoma TGLS = 3-1 ]               |               |                       |                    |
| * Skin                               |               | Infiltration Cellular | Lymphocyte, Marked |
| [ Infiltration Cellular TGLS = 1-8 ] |               |                       |                    |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 191

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-191

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Nose                    | * Ovary                     | * Pancreas               |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |   |                                  |          |
|---------------------------|---|----------------------------------|----------|
| * Adrenal Cortex          |   | Vacuolization Cytoplasmic        | Mild     |
| * Bone Marrow             |   | Hyperplasia                      | Mild     |
| * Kidney                  |   | Mineralization                   | Minimal  |
|                           |   | Nephropathy                      | Mild     |
|                           |   | Pigmentation                     | Minimal  |
| * Liver                   |   | Vacuolization Cytoplasmic        | Marked   |
|                           | [ Vacuolization Cytoplasmic TGLS = 1-5 ]        |                                  |          |
| * Lung                    |   | Edema                            | Mild     |
|                           |   | Fibrosis                         | Mild     |
| * Lymph Node, Mediastinal |   | Pigmentation                     | Mild     |
| * Mammary Gland           |   | Fibroadenoma                     |          |
| * Pituitary Gland         | Pars Distalis                                   | Adenoma                          | Multiple |
|                           | [ Adenoma TGLS = 2-1 ]                          |                                  |          |
| * Spleen                  |   | Hematopoietic Cell Proliferation | Mild     |
|                           | [ Hematopoietic Cell Proliferation TGLS = 4-5 ] |                                  |          |
| * Thyroid Gland           | C Cell  | Adenoma                          |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 192

TRT#: 6

SEX: Female

DAY ON TEST: 724

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-192

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Nose                      | * Ovary                  | * Pancreas                 | * Parathyroid Gland       |
| * Salivary Glands           | * Skin                   | * Spleen                   | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |
| * Uterus                    |                          |                            |                           |

OBSERVATIONS

|                              |               |                           |          |
|------------------------------|---------------|---------------------------|----------|
| * Kidney                     |               | Mineralization            | Minimal  |
|                              |               | Nephropathy               | Minimal  |
|                              |               | Pigmentation              | Minimal  |
| * Liver                      |               | Vacuolization Cytoplasmic | Mild     |
| * Lymph Node, Bronchial      |               | Pigmentation              | Minimal  |
| * Lymph Node, Mediastinal    |               | Pigmentation              | Mild     |
| * Mammary Gland              |               | Fibroadenoma              |          |
| [ Fibroadenoma TGLS = 1-12 ] |               |                           |          |
| * Pituitary Gland            | Pars Distalis | Adenoma                   |          |
| [ Adenoma TGLS = 4-1 ]       |               |                           |          |
| * Stomach, Forestomach       |               | Inflammation              | Moderate |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 193

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-193

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     | * Ovary                   |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   |                           |

OBSERVATIONS

- |                           |               |                  |         |
|---------------------------|---------------|------------------|---------|
| * Kidney                  |               | Nephropathy      | Minimal |
| * Liver                   |               | Basophilic Focus | Minimal |
| * Lymph Node, Mediastinal |               | Hemorrhage       | Minimal |
|                           |               | Pigmentation     | Minimal |
| * Pancreas                | Acinus        | Atrophy          | Minimal |
| * Pituitary Gland         | Pars Distalis | Adenoma          |         |
| [ Adenoma TGLS = 2-1 ]    |               |                  |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 194

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-194

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | * Blood Vessel           | * Bone                     | * Clitoral Gland          |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Nose                      | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

OBSERVATIONS

- |                                     |               |                      |         |
|-------------------------------------|---------------|----------------------|---------|
| * Adrenal Cortex                    |               | Leukemia Mononuclear |         |
| * Bone Marrow                       |               | Leukemia Mononuclear |         |
| * Brain                             |               | Leukemia Mononuclear |         |
| * Heart                             |               | Leukemia Mononuclear |         |
| * Kidney                            |               | Leukemia Mononuclear |         |
|                                     |               | Pigmentation         | Mild    |
| * Larynx                            |               | Leukemia Mononuclear |         |
| * Liver                             |               | Basophilic Focus     | Minimal |
|                                     |               | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 5-5 ] |               |                      |         |
| * Lung                              |               | Leukemia Mononuclear |         |
| * Lymph Node, Bronchial             |               | Leukemia Mononuclear |         |
| * Lymph Node, Mandibular            |               | Leukemia Mononuclear |         |
| * Lymph Node, Mediastinal           |               | Leukemia Mononuclear |         |
| * Lymph Node, Mesenteric            |               | Leukemia Mononuclear |         |
| * Mammary Gland                     |               | Fibroadenoma         |         |
|                                     |               | Hyperplasia          | Mild    |
| [ Fibroadenoma TGLS = 1-13 ]        |               |                      |         |
| * Ovary                             |               | Leukemia Mononuclear |         |
| * Pancreas                          | Acinus        | Atrophy              | Mild    |
| * Pituitary Gland                   | Pars Distalis | Angiectasis          | Mild    |
|                                     |               | Leukemia Mononuclear |         |
| [ Angiectasis TGLS = 7-1 ]          |               |                      |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 194

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-194

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Spleen

[ Leukemia Mononuclear TGLS = 3,4-12 ]

Leukemia Mononuclear

\* Thyroid Gland

[ Adenoma TGLS = 2-3 ]

C Cell

Adenoma

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 195

TRT#: 6

SEX: Female

DAY ON TEST: 724

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-195

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Blood Vessel           | * Bone                     | * Brain                   | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Mandibular | * Nose                     | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

MISSING

|          |                         |
|----------|-------------------------|
| * Larynx | * Lymph Node, Bronchial |
|----------|-------------------------|

OBSERVATIONS

|  |             |                           |          |
|--|-------------|---------------------------|----------|
| * Adrenal Cortex   |             | Hemorrhage                | Moderate |
| * Adrenal Medulla  | Bilateral   | Pheochromocytoma Benign   |          |
| * Bone Marrow  |             | Hyperplasia               | Mild     |
| * Clitoral Gland   |             | Hyperplasia               | Mild     |
| * Heart  | Myocardium  | Hypertrophy               | Mild     |
| [ Hypertrophy TGLS = 2-4 ]   |             |                           |          |
| * Kidney   |             | Nephropathy               | Minimal  |
| * Larynx   |             |                           |          |
| Note: The larynx is present, but the correct section for evaluation could not be obtained. |             |                           |          |
| * Liver  |             | Degeneration              | Moderate |
|  |             | Necrosis                  | Moderate |
|  | Portal Vein | Thrombosis                | Marked   |
|  |             | Vacuolization Cytoplasmic | Moderate |
| [ Degeneration TGLS = 4-5,13 ]   |             |                           |          |
| [ Necrosis TGLS = 4-5,13 ]   |             |                           |          |
| [ Thrombosis TGLS = 3-13 ]   |             |                           |          |
| [ Vacuolization Cytoplasmic TGLS = 4-5,13 ]  |             |                           |          |
| * Lymph Node, Mediastinal  |             | Edema                     | Mild     |
|  |             | Hemorrhage                | Mild     |
| * Lymph Node, Mesenteric   |             | Hemorrhage                | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:34

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 195

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 724

**DOSE:** 75 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-195

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|  |               |                          |                      |
|--|---------------|--------------------------|----------------------|
| * Mammary Gland<br>[ Fibroadenoma TGLS = 5-15 ]                    |               | Fibroadenoma             |                      |
| * Pituitary Gland<br>[ Angiectasis TGLS = 8-1.1 ]                  | Pars Distalis | Angiectasis              | Moderate             |
| * Spleen   |               | Hyperplasia              | Lymphoid, Moderate   |
| * Uterus   |               | Polyp Stromal            |                      |
| Vagina<br>[ Degeneration TGLS = 6-12 ]<br>[ Fibrosis TGLS = 6-12 ] | Arteriole     | Degeneration<br>Fibrosis | Moderate<br>Moderate |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 196

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-196

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Clitoral Gland           |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Nose                      | * Ovary                  | * Pancreas                 |
| * Parathyroid Gland       | * Salivary Glands           | * Skin                   | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    |                          |                            |

OBSERVATIONS

- |                                      |               |   |          |
|--------------------------------------|---------------|---|----------|
| * Adrenal Cortex                     |               | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Mild     |
| * Adrenal Medulla                    |               | Leukemia Mononuclear                              |          |
| * Bone Marrow                        |               | Leukemia Mononuclear                              |          |
| * Kidney                             |               | Leukemia Mononuclear<br>Nephropathy               | Mild     |
| * Liver                              |               | Basophilic Focus                                  | Minimal  |
| * Lung                               |               | Leukemia Mononuclear                              |          |
| * Lymph Node, Mediastinal            |               | Leukemia Mononuclear                              |          |
| * Mammary Gland                      |               | Fibroadenoma<br>Hyperplasia                       | Mild     |
| [ Fibroadenoma TGLS = 3-13 ]         |               |   |          |
| * Pituitary Gland                    | Pars Distalis | Adenoma   | Multiple |
| [ Adenoma TGLS = 2-1 ]               |               |   |          |
| * Spleen                             |               | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 1-12 ] |               |   |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 197

TRT#: 6

SEX: Female

DAY ON TEST: 735

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-197

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Bone                   | * Brain                    |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Nose                    | * Ovary                     | * Pancreas               | * Parathyroid Gland        |
| * Salivary Glands         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Trachea                | * Urinary Bladder          |
| * Uterus                  |                             |                          |                            |

MISSING

- \* Larynx

OBSERVATIONS

- |  |               |                            |          |
|--|---------------|----------------------------|----------|
| * Adrenal Medulla<br>[ Pheochromocytoma Malignant TGLS = 2-3 ]                             |               | Pheochromocytoma Malignant |          |
| * Bone Marrow  |               | Hemorrhage                 | Mild     |
| * Clitoral Gland   |               | Inflammation               | Moderate |
| * Kidney<br>[ Nephropathy TGLS = 3-7 ]   |               | Nephropathy                | Mild     |
| * Larynx<br>Note: Larynx is present, but the correct area for evaluation was not obtained. |               |                            |          |
| * Liver  |               | Basophilic Focus           | Mild     |
|  |               | Clear Cell Focus           | Minimal  |
|  |               | Vacuolization Cytoplasmic  | Minimal  |
| * Lymph Node, Bronchial  |               | Hemorrhage                 | Mild     |
| * Lymph Node, Mediastinal  |               | Hemorrhage                 | Mild     |
|  |               | Pigmentation               | Mild     |
| * Mammary Gland<br>[ Galactocele TGLS = 1-8 ]  |               | Galactocele                | Mild     |
| * Pituitary Gland<br>[ Hyperplasia TGLS = 4-1 ]  | Pars Distalis | Hyperplasia                | Mild     |
| * Thyroid Gland  | C Cell        | Adenoma                    |          |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 197

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-197

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 198

TRT#: 6

SEX: Female

DAY ON TEST: 734

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-198

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Parathyroid Gland        | * Salivary Glands         |
| * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          | * Uterus                  |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |                                     |                      |                   |
|---------------------------|-------------------------------------|----------------------|-------------------|
| * Kidney                  |                                     | Mineralization       | Minimal           |
|                           |                                     | Nephropathy          | Mild              |
|                           |                                     | Pigmentation         | Minimal           |
| * Liver                   |                                     | Basophilic Focus     | Minimal           |
|                           |                                     | Leukemia Mononuclear |                   |
|                           | [ Leukemia Mononuclear TGLS = 2-5 ] |                      |                   |
| * Lymph Node, Mandibular  |                                     | Hyperplasia          | Plasma Cell, Mild |
| * Lymph Node, Mediastinal |                                     | Hemorrhage           | Minimal           |
| * Lymph Node, Mesenteric  |                                     | Hemorrhage           | Minimal           |
| * Mammary Gland           |                                     | Hyperplasia          | Mild              |
| * Nose                    | Glands                              | Hyperplasia          | Mild              |
|                           | Respirat Epith                      | Hyperplasia          | Mild              |
|                           |                                     | Inflammation         | Moderate          |
|                           | Respirat Epith                      | Ulcer                | Minimal           |
| * Ovary                   |                                     | Cyst                 | Minimal           |
| * Pancreas                | Acinus                              | Atrophy              | Minimal           |
| * Pituitary Gland         | Pars Distalis                       | Adenoma              |                   |
|                           | [ Adenoma TGLS = 3,4-1 ]            |                      |                   |
| * Spleen                  |                                     | Leukemia Mononuclear |                   |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 198

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-198

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 199

TRT#: 6

SEX: Female

DAY ON TEST: 609

DOSE: 75 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-199

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Bronchial     |
| * Lymph Node, Mesenteric | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

\* Larynx

OBSERVATIONS

|                            |                |                  |                     |
|----------------------------|----------------|------------------|---------------------|
| * Bone Marrow              | Myeloid Cell   | Hyperplasia      | Moderate            |
| * Kidney                   |                | Nephropathy      | Minimal             |
| * Liver                    |                | Basophilic Focus | Minimal             |
| * Lung                     |                | Hemorrhage       | Minimal             |
| * Lymph Node, Mandibular   |                | Hyperplasia      | Plasma Cell, Marked |
| [ Hyperplasia TGLS = 1-2 ] |                |                  |                     |
| * Lymph Node, Mediastinal  |                | Hemorrhage       | Moderate            |
| * Mammary Gland            |                | Galactoceles     | Moderate            |
| * Nose                     |                | Inflammation     | Moderate            |
|                            | Respirat Epith | Ulcer            | Mild                |
| * Pituitary Gland          | Pars Distalis  | Adenoma          |                     |
| [ Adenoma TGLS = 3-1 ]     |                |                  |                     |
| Zymbal's Gland             |                | Carcinoma        |                     |
| [ Carcinoma TGLS = 2-12 ]  |                |                  |                     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 200

TRT#: 6

SEX: Female

DAY ON TEST: 736

DOSE: 75 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-200

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mesenteric  | * Nose                      | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

OBSERVATIONS

|                           |   |  |                   |
|---------------------------|---|--|-------------------|
| * Adrenal Cortex          |   | Leukemia Mononuclear<br>Vacuolization Cytoplasmic  | Mild              |
| * Bone Marrow             |   | Leukemia Mononuclear                               |                   |
| * Kidney                  |   | Leukemia Mononuclear<br>Nephropathy                | Mild              |
| * Liver                   |   | Hepatodiaphragmatic Nodule<br>Leukemia Mononuclear | Mild              |
|                           | [ Hepatodiaphragmatic Nodule TGLS = 5-5 ] |  |                   |
|                           | [ Leukemia Mononuclear TGLS = 6-5 ]       |  |                   |
| * Lymph Node, Mandibular  |   | Hyperplasia  | Plasma Cell, Mild |
| * Lymph Node, Mediastinal |   | Pigmentation                                       | Minimal           |
| * Mammary Gland           |   | Fibroadenoma<br>Galactocele                        | Moderate          |
|                           | [ Fibroadenoma TGLS = 1-14 ]              |  |                   |
| Mesentery                 | Fat                                       | Necrosis   | Moderate          |
|                           | [ Necrosis TGLS = 2-12 ]                  |  |                   |
| * Pancreas                | Acinus                                    | Atrophy  | Minimal           |
| * Pituitary Gland         | Pars Distalis                             | Angiectasis  | Marked            |
|                           | [ Angiectasis TGLS = 7-1 ]                |  |                   |
| * Spleen                  |   | Hemorrhage<br>Leukemia Mononuclear                 | Moderate          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 200

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 75 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-200

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hemorrhage TGLS = 4-13 ]

[ Leukemia Mononuclear TGLS = 3-5 ]

\* Uterus

Hydrometra

Mild

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 251

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-251

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      |
| * Ovary                  | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

OBSERVATIONS

|                              |               |                           |          |
|------------------------------|---------------|---------------------------|----------|
| * Adrenal Cortex             |               | Angiectasis               | Mild     |
|                              |               | Hyperplasia               | Mild     |
| * Kidney                     |               | Nephropathy               | Mild     |
| * Liver                      |               | Basophilic Focus          | Minimal  |
|                              |               | Vacuolization Cytoplasmic | Minimal  |
| * Lymph Node, Bronchial      |               | Pigmentation              | Mild     |
| * Lymph Node, Mediastinal    |               | Hemorrhage                | Minimal  |
|                              |               | Pigmentation              | Minimal  |
| * Mammary Gland              |               | Fibroadenoma              |          |
|                              |               | Hyperplasia               | Mild     |
| [ Fibroadenoma TGLS = 1-12 ] |               |                           |          |
| * Pancreas                   | Acinus        | Atrophy                   | Minimal  |
| * Pituitary Gland            | Pars Distalis | Adenoma                   | Multiple |
| [ Adenoma TGLS = 2-1.1 ]     |               |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 252

TRT#: 7

SEX: Female

DAY ON TEST: 736

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-252

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Ovary                  | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                   |   |                         |          |
|-------------------|---|-------------------------|----------|
| * Adrenal Cortex  |   | Angiectasis             | Mild     |
| * Kidney          |   | Mineralization          | Minimal  |
|                   |   | Nephropathy             | Mild     |
| * Liver           |   | Basophilic Focus        | Minimal  |
| * Mammary Gland   |   | Hyperplasia             | Mild     |
| * Nose            |   | Inflammation            | Minimal  |
| * Pancreas        | Acinus                                  | Atrophy                 | Moderate |
| * Pituitary Gland | Pars Distalis                           | Hyperplasia             | Moderate |
|                   | [ Hyperplasia TGLS = 2-1 ]              |                         |          |
| Tongue            |   | Squamous Cell Papilloma |          |
|                   | [ Squamous Cell Papilloma TGLS = 1-12 ] |                         |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 253

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-253

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Bone Marrow               | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Ovary                   | * Parathyroid Gland         | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

OBSERVATIONS

|   |               |                            |          |
|---|---------------|----------------------------|----------|
| * Blood Vessel                            |               | Degeneration               | Marked   |
|   |               | Inflammation               | Moderate |
| [ Degeneration TGLS = 3-12 ]              |               |                            |          |
| [ Inflammation TGLS = 3-12 ]              |               |                            |          |
| * Bone                                    | Turbinate     | Hyperostosis               | Mild     |
|   |               | Hyperostosis               | Mild     |
| * Kidney                                  |               | Nephropathy                | Minimal  |
| * Liver                                   |               | Basophilic Focus           | Mild     |
|   |               | Hepatodiaphragmatic Nodule |          |
|   |               | Vacuolization Cytoplasmic  | Mild     |
| [ Hepatodiaphragmatic Nodule TGLS = 2-5 ] |               |                            |          |
| * Lymph Node, Mediastinal                 |               | Hemorrhage                 | Moderate |
|   |               | Pigmentation               | Minimal  |
| Mesentery                                 | Artery        | Degeneration               | Marked   |
|   | Artery        | Inflammation               | Moderate |
| [ Degeneration TGLS = 1-13 ]              |               |                            |          |
| [ Inflammation TGLS = 1-13 ]              |               |                            |          |
| * Pancreas                                | Acinus        | Atrophy                    | Mild     |
|   | Arteriole     | Inflammation               | Moderate |
| * Pituitary Gland                         | Pars Distalis | Hyperplasia                | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 253

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-253

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hyperplasia TGLS = 4-1 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 254

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-254

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Clitoral Gland           |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular | * Nose                     |
| * Ovary                   | * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |

OBSERVATIONS

|                                     |               |                      |          |
|-------------------------------------|---------------|----------------------|----------|
| * Adrenal Cortex                    |               | Leukemia Mononuclear |          |
|                                     |               | Necrosis             | Mild     |
| * Adrenal Medulla                   |               | Hyperplasia          | Mild     |
|                                     |               | Leukemia Mononuclear |          |
| * Bone Marrow                       |               | Leukemia Mononuclear |          |
| * Kidney                            |               | Leukemia Mononuclear |          |
|                                     |               | Necrosis             | Marked   |
|                                     |               | Nephropathy          | Minimal  |
| [ Necrosis TGLS = 4-7 ]             |               |                      |          |
| * Liver                             |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 6-5 ] |               |                      |          |
| * Lung                              |               | Leukemia Mononuclear |          |
| * Lymph Node, Bronchial             |               | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal           |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 7-5 ] |               |                      |          |
| * Lymph Node, Mesenteric            |               | Leukemia Mononuclear |          |
| * Mammary Gland                     |               | Fibroadenoma         |          |
|                                     |               | Hyperplasia          | Mild     |
| [ Fibroadenoma TGLS = 1-12 ]        |               |                      |          |
| * Pituitary Gland                   | Pars Distalis | Hyperplasia          | Moderate |
| [ Hyperplasia TGLS = 8-1 ]          |               |                      |          |
| * Spleen                            |               | Leukemia Mononuclear |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 254

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-254

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 3-5 ]

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PRIMARY CAUSE OF DEATH

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-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 255

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-255

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     | * Ovary                   |
| * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          | * Uterus                  |

**MISSING**

\* Lymph Node, Bronchial

**OBSERVATIONS**

|                            |               |                  |                  |
|----------------------------|---------------|------------------|------------------|
| Eye                        | Lens          | Cataract         | Mild             |
| * Kidney                   |               | Mineralization   | Minimal          |
|                            |               | Nephropathy      | Minimal          |
| * Liver                    |               | Basophilic Focus | Minimal          |
|                            |               | Inflammation     | Chronic, Minimal |
| * Pituitary Gland          | Pars Distalis | Hyperplasia      | Mild             |
| [ Hyperplasia TGLS = 1-1 ] |               |                  |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 256

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 393

HISTO: 90-5201-256

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Bone                    | * Bone Marrow               | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Liver                     | * Lung                   |
| * Mammary Gland            | * Nose                    | * Ovary                     | * Pancreas               |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Spleen                 |
| * Stomach, Glandular       | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

MISSING

- \* Larynx

OBSERVATIONS

- |   |               |                           |                                     |
|---|---------------|---------------------------|-------------------------------------|
| * Adrenal Cortex  |               | Vacuolization Cytoplasmic | Mild                                |
| * Adrenal Medulla   |               | Hyperplasia               | Minimal                             |
| * Kidney  |               | Mineralization            | Mild                                |
|   |               | Nephropathy               | Mild                                |
| * Larynx  |               |                           |                                     |
| Note: A section of larynx is present, but not in the proper location for adequate evaluation. |               |                           |                                     |
| * Lymph Node, Bronchial   |               | Hemorrhage                | Moderate                            |
| * Lymph Node, Mandibular  |               | Hemorrhage                | Moderate                            |
| * Lymph Node, Mediastinal   |               | Rhabdomyosarcoma          | Metastatic (Uncertain Primary Site) |
| [ Rhabdomyosarcoma TGLS = 3-5 ]   |               |                           |                                     |
| * Lymph Node, Mesenteric  |               | Hemorrhage                | Mild                                |
| * Pituitary Gland   | Pars Distalis | Angiectasis               | Minimal                             |
| * Stomach, Forestomach  |               | Hyperkeratosis            | Mild                                |
|   |               | Hyperplasia               | Mild                                |
| * Thymus  |               | Rhabdomyosarcoma          | Metastatic (Uncertain Primary Site) |
| [ Rhabdomyosarcoma TGLS = 4-12 ]  |               |                           |                                     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 257

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 689

HISTO: 90-5201-257

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Bone                    | * Clitoral Gland            | * Esophagus              |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Parathyroid Gland         | * Salivary Glands        |
| * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        | * Thyroid Gland          |
| * Trachea                  | * Urinary Bladder         | * Uterus                    |                          |

AUTO PRECLUDES DIAG.

\* Intestine Large, Cecum

OBSERVATIONS

|                           |            |  |         |
|---------------------------|------------|--|---------|
| * Adrenal Cortex          |            | Leukemia Mononuclear                     |         |
| * Adrenal Medulla         |            | Leukemia Mononuclear                     |         |
| * Bone Marrow             |            | Leukemia Mononuclear                     |         |
| * Brain                   |            | Leukemia Mononuclear                     |         |
| * Heart                   |            | Leukemia Mononuclear                     |         |
| * Kidney                  |            | Leukemia Mononuclear                     |         |
|                           |            | Nephropathy                              | Minimal |
| * Larynx                  |            | Leukemia Mononuclear                     |         |
| * Liver                   |            | Leukemia Mononuclear                     |         |
| * Lung                    |            | Leukemia Mononuclear                     |         |
| Lymph Node                | Pancreatic | Leukemia Mononuclear                     |         |
|                           |            | [ Leukemia Mononuclear TGLS = 7-13 ]     |         |
| * Lymph Node, Bronchial   |            | Leukemia Mononuclear                     |         |
| * Lymph Node, Mandibular  |            | Leukemia Mononuclear                     |         |
|                           |            | [ Leukemia Mononuclear TGLS = 1,2-2,12 ] |         |
| * Lymph Node, Mediastinal |            | Leukemia Mononuclear                     |         |
|                           |            | [ Leukemia Mononuclear TGLS = 3-5 ]      |         |
| * Lymph Node, Mesenteric  |            | Leukemia Mononuclear                     |         |
|                           |            | [ Leukemia Mononuclear TGLS = 12-8 ]     |         |
| * Mammary Gland           |            | Hyperplasia                              | Mild    |
| * Nose                    |            | Leukemia Mononuclear                     |         |
| * Ovary                   |            | Cyst                                     | Mild    |

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 257

TRT#: 7

SEX: Female

DAY ON TEST: 689

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-257

**ORGAN AND ACCOUNTABLE SITE STATUS**

|  |               |                      |      |
|--|---------------|----------------------|------|
|  |               | Leukemia Mononuclear |      |
| [ Cyst TGLS = 5-9 ]                        |               |                      |      |
| * Pancreas                                 | Acinus        | Atrophy              | Mild |
|  |               | Leukemia Mononuclear |      |
| * Pituitary Gland                          | Pars Distalis | Hyperplasia          | Mild |
|  | Pars Distalis | Leukemia Mononuclear |      |
| [ Hyperplasia TGLS = 10-1 ]                |               |                      |      |
| [ Leukemia Mononuclear TGLS = 10-1 ]       |               |                      |      |
| * Spleen                                   |               | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 8-14; 9-15 ] |               |                      |      |
| * Thymus                                   |               | Leukemia Mononuclear |      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 258

TRT#: 7

SEX: Female

DAY ON TEST: 659

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-258

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                   |                   |                          |                           |
|-------------------|-------------------|--------------------------|---------------------------|
| * Adrenal Cortex  | * Blood Vessel    | * Bone                   | * Brain                   |
| * Clitoral Gland  | * Esophagus       | * Heart                  | * Islets, Pancreatic      |
| * Kidney          | * Larynx          | * Lymph Node, Mandibular | * Lymph Node, Mediastinal |
| * Nose            | * Ovary           | * Pancreas               | * Parathyroid Gland       |
| * Pituitary Gland | * Salivary Glands | * Skin                   | * Stomach, Forestomach    |
| * Thymus          | * Thyroid Gland   | * Trachea                | * Urinary Bladder         |
| * Uterus          |                   |                          |                           |

MISSING

- \* Mammary Gland

AUTO PRECLUDES DIAG.

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Spleen                  | * Stomach, Glandular        |

OBSERVATIONS

- |  |                            |          |
|--|----------------------------|----------|
| * Adrenal Medulla<br>[ Pheochromocytoma Malignant TGLS = 2-3 ] | Pheochromocytoma Malignant |          |
| * Bone Marrow  | Hyperplasia                | Moderate |
| * Liver  | Basophilic Focus           | Mild     |
| * Lung   | Edema                      | Mild     |
| * Lymph Node, Bronchial  | Hemorrhage                 | Mild     |
| * Lymph Node, Mesenteric                                       | Ectasia                    | Moderate |
| Note: The tissue is too autolytic for any further diagnosis.   |                            |          |
| Note: The tissue is too autolytic for any further diagnosis.   |                            |          |
| [ Ectasia TGLS = 4-8 ]   |                            |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:34  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 259

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-259

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Blood Vessel             | * Bone                    | * Bone Marrow               | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Ovary                     | * Pancreas               |
| * Parathyroid Gland        | * Salivary Glands         | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

**OBSERVATIONS**

|   |               |                              |                  |
|---|---------------|------------------------------|------------------|
| * Adrenal Cortex                        |               | Angiectasis                  | Mild             |
| * Adrenal Medulla                       |               | Infiltration Cellular        | Lymphocyte, Mild |
| * Kidney                                |               | Nephropathy                  | Mild             |
| [ Nephropathy TGLS = 5-7 ]              |               |                              |                  |
| * Liver                                 |               | Basophilic Focus             | Minimal          |
| [ Infiltration Cellular TGLS = 4-5 ]    |               | Infiltration Cellular        | Lymphocyte, Mild |
| * Lung                                  |               | Alveolar/Bronchiolar Adenoma |                  |
| * Lymph Node, Mediastinal               |               | Hemorrhage                   | Mild             |
|   |               | Pigmentation                 | Mild             |
| * Mammary Gland                         |               | Galactocele                  | Mild             |
| [ Galactocele TGLS = 1-8 ]              |               | Hyperplasia                  | Mild             |
| [ Hyperplasia TGLS = 1-8 ]              |               |                              |                  |
| * Nose                                  |               | Inflammation                 | Minimal          |
| * Pituitary Gland                       | Pars Distalis | Adenoma                      |                  |
| [ Adenoma TGLS = 2-1 ]                  |               |                              |                  |
| * Skin                                  |               | Squamous Cell Papilloma      |                  |
| [ Squamous Cell Papilloma TGLS = 3-12 ] |               |                              |                  |
| * Thyroid Gland                         | C Cell        | Hyperplasia                  | Minimal          |

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 260

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-260

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Nose                   |
| * Ovary                    | * Pancreas                | * Parathyroid Gland         | * Salivary Glands        |
| * Skin                     | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                   | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

OBSERVATIONS

- |   |               |                            |          |
|---|---------------|----------------------------|----------|
| * Adrenal Cortex                          |               | Adenoma                    |          |
| [ Adenoma TGLS = 4-3 ]                    |               |                            |          |
| * Bone Marrow                             |               | Hyperplasia                | Mild     |
| * Kidney                                  |               | Nephropathy                | Mild     |
| * Liver                                   |               | Basophilic Focus           | Minimal  |
|   |               | Eosinophilic Focus         | Mild     |
|   |               | Hepatodiaphragmatic Nodule | Moderate |
| [ Basophilic Focus TGLS = 5-5 ]           |               |                            |          |
| [ Eosinophilic Focus TGLS = 5-5 ]         |               |                            |          |
| [ Hepatodiaphragmatic Nodule TGLS = 6-5 ] |               |                            |          |
| * Lymph Node, Mesenteric                  |               | Hemorrhage                 | Mild     |
| * Mammary Gland                           |               | Fibroadenoma               | Multiple |
| [ Fibroadenoma TGLS = 1,3-12 ]            |               |                            |          |
| * Pituitary Gland                         | Pars Distalis | Adenoma                    |          |
| [ Adenoma TGLS = 2-1 ]                    |               |                            |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 261

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-261

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone Marrow            | * Brain                    |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   |
| * Nose                    | * Ovary                     | * Pancreas               | * Parathyroid Gland        |
| * Salivary Glands         | * Skin                      | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Thyroid Gland          | * Trachea                  |
| * Urinary Bladder         | * Uterus                    |                          |                            |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |               |                            |                      |
|---------------------------|---------------|----------------------------|----------------------|
| * Adrenal Cortex          |               | Hyperplasia                | Mild                 |
|                           |               | Hypertrophy                | Mild                 |
|                           |               | Vacuolization Cytoplasmic  | Mild                 |
| * Bone                    | Turbinate     | Hyperostosis               | Marked               |
|                           |               | Hyperostosis               | Marked               |
| * Clitoral Gland          |               | Carcinoma                  |                      |
| * Kidney                  |               | Nephropathy                | Mild                 |
| * Larynx                  |               | Infiltration Cellular      | Lymphocyte, Moderate |
| * Liver                   |               | Vacuolization Cytoplasmic  | Minimal              |
| * Lymph Node, Mediastinal |               | Hemorrhage                 | Minimal              |
|                           |               | Pigmentation               | Minimal              |
| * Mammary Gland           |               | Hyperplasia                | Mild                 |
|                           |               | [ Hyperplasia TGLS = 1-8 ] |                      |
| * Pituitary Gland         | Pars Distalis | Adenoma                    |                      |
|                           |               | [ Adenoma TGLS = 2-1 ]     |                      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 262

TRT#: 7

SEX: Female

DAY ON TEST: 734

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-262

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Nose                   | * Ovary                    | * Parathyroid Gland       |
| * Salivary Glands           | * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Trachea                | * Urinary Bladder          | * Uterus                  |

OBSERVATIONS

|   |               |   |                                      |
|---|---------------|---|--------------------------------------|
| * Kidney<br>[ Nephropathy TGLS = 3-7 ]              |               | Nephropathy   | Mild                                 |
| * Liver<br>[ Vacuolization Cytoplasmic TGLS = 2-5 ] |               | Basophilic Focus<br>Inflammation<br>Vacuolization Cytoplasmic | Minimal<br>Chronic, Mild<br>Moderate |
| * Lymph Node, Mediastinal                           |               | Pigmentation  | Minimal                              |
| * Mammary Gland                                     |               | Hyperplasia   | Mild                                 |
| * Pancreas  | Acinus        | Atrophy   | Mild                                 |
| * Pituitary Gland<br>[ Adenoma TGLS = 4-1 ]         | Pars Distalis | Adenoma   |                                      |
| * Skin<br>[ Squamous Cell Carcinoma TGLS = 1-12 ]   |               | Squamous Cell Carcinoma                                       |                                      |
| * Thyroid Gland                                     | C Cell        | Adenoma   |                                      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:34

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 263

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-263

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                          |                             |
|--------------------------|----------------------------|--------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel           | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland         | * Esophagus                 |
| * Heart                  | * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic     | * Larynx                    |
| * Lung                   | * Lymph Node, Mesenteric   | * Nose                   | * Ovary                     |
| * Parathyroid Gland      | * Salivary Glands          | * Spleen                 | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland          | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                          |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                              |               |                   |                   |
|------------------------------|---------------|-------------------|-------------------|
| * Intestine Large, Rectum    |               | Polyp Adenomatous |                   |
| * Kidney                     |               | Nephropathy       | Mild              |
| * Liver                      |               | Basophilic Focus  | Minimal           |
| * Lymph Node, Mandibular     |               | Hyperplasia       | Plasma Cell, Mild |
| * Lymph Node, Mediastinal    |               | Hemorrhage        | Minimal           |
|                              |               | Pigmentation      | Minimal           |
| * Mammary Gland              |               | Fibroadenoma      |                   |
| [ Fibroadenoma TGLS = 1-12 ] |               |                   |                   |
| * Pancreas                   | Acinus        | Atrophy           | Minimal           |
| * Pituitary Gland            | Pars Distalis | Adenoma           |                   |
| [ Adenoma TGLS = 2-1 ]       |               |                   |                   |
| * Skin                       | Epidermis     | Hyperplasia       | Mild              |
|                              |               | Ulcer             | Mild              |
| [ Hyperplasia TGLS = 4-13 ]  |               |                   |                   |
| [ Ulcer TGLS = 4-13 ]        |               |                   |                   |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 264

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-264

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Bronchial     | * Lymph Node, Mesenteric |
| * Nose                     | * Parathyroid Gland       | * Salivary Glands           | * Skin                   |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

OBSERVATIONS

|                           |                                     |                           |                   |
|---------------------------|-------------------------------------|---------------------------|-------------------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear      |                   |
|                           |                                     | Vacuolization Cytoplasmic | Mild              |
| * Heart                   |                                     | Leukemia Mononuclear      |                   |
| * Kidney                  |                                     | Leukemia Mononuclear      |                   |
|                           |                                     | Nephropathy               | Minimal           |
|                           |                                     | Pigmentation              | Minimal           |
| * Larynx                  |                                     | Inflammation              | Minimal           |
| * Liver                   |                                     | Eosinophilic Focus        | Mild              |
|                           |                                     | Leukemia Mononuclear      |                   |
|                           | [ Leukemia Mononuclear TGLS = 2-5 ] |                           |                   |
| * Lung                    |                                     | Leukemia Mononuclear      |                   |
| * Lymph Node, Mandibular  |                                     | Hyperplasia               | Plasma Cell, Mild |
| * Lymph Node, Mediastinal |                                     | Leukemia Mononuclear      |                   |
| * Mammary Gland           |                                     | Hyperplasia               | Minimal           |
| * Ovary                   |                                     | Cyst                      | Mild              |
| * Pancreas                | Acinus                              | Atrophy                   | Moderate          |
|                           |                                     | Cyst                      | Mild              |
| * Pituitary Gland         | Pars Distalis                       | Adenoma                   |                   |
|                           | [ Adenoma TGLS = 3-1 ]              |                           |                   |
| * Spleen                  |                                     | Leukemia Mononuclear      |                   |
|                           | [ Leukemia Mononuclear TGLS = 1-5 ] |                           |                   |
| * Thyroid Gland           | C Cell                              | Hyperplasia               | Minimal           |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 264

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-264

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 265

TRT#: 7

SEX: Female

DAY ON TEST: 502

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-265

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    | * Ovary                     |
| * Pancreas               | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |  |                                  |                            |
|---------------------------|--|----------------------------------|----------------------------|
| * Bone Marrow             |  | Hyperplasia                      | Mild                       |
| * Kidney                  |  | Mineralization                   | Minimal                    |
|                           |  | Nephropathy                      | Minimal                    |
| * Liver                   |  | Basophilic Focus                 | Mild                       |
|                           |  | Degeneration                     | Mild                       |
|                           |  | Necrosis                         | Mild                       |
|                           |  | Vacuolization Cytoplasmic        | Mild                       |
|                           | [ Vacuolization Cytoplasmic TGLS = 6-5 ] |                                  |                            |
| * Lung                    |  | Carcinoma                        | Metastatic (Mammary Gland) |
|                           | [ Carcinoma TGLS = 2-6;3,4-13 ]          |                                  |                            |
| * Lymph Node, Mediastinal |  | Hemorrhage                       | Mild                       |
|                           |  | Pigmentation                     | Mild                       |
| * Mammary Gland           |  | Carcinoma                        |                            |
|                           | [ Carcinoma TGLS = 1-12 ]                |                                  |                            |
| Mesentery                 | Fat                                      | Necrosis                         | Moderate                   |
|                           | [ Necrosis TGLS = 2-8 ]                  |                                  |                            |
| * Pituitary Gland         | Pars Distalis                            | Hyperplasia                      | Mild                       |
|                           | [ Hyperplasia TGLS = 7-1 ]               |                                  |                            |
| * Spleen                  |  | Hematopoietic Cell Proliferation | Moderate                   |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 265

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 502

**DOSE:** 250 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-265

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Stomach, Forestomach

Ulcer

Mild

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 266

TRT#: 7

SEX: Female

DAY ON TEST: 694

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-266

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Blood Vessel              | * Brain                  | * Clitoral Gland           |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lymph Node, Mesenteric    | * Nose                   | * Parathyroid Gland        |
| * Salivary Glands         | * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |                            |

MISSING

\* Larynx

OBSERVATIONS

|  |  |                |
|--|--|----------------|
| * Adrenal Medulla<br>[ Pheochromocytoma Malignant TGLS = 3-3 ]                                   | Pheochromocytoma Malignant                 |                |
| * Bone   | Hyperostosis                               | Mild           |
| * Bone Marrow  | Leukemia Mononuclear                       |                |
| * Kidney   | Infarct                                    | Moderate       |
|  | Pigmentation                               | Mild           |
| * Larynx<br>Note: The larynx is present, but the proper section for evaluation was not obtained. |  |                |
| * Liver<br>[ Leukemia Mononuclear TGLS = 4-5 ]   | Leukemia Mononuclear                       |                |
| * Lung   | Leukemia Mononuclear                       |                |
| * Lymph Node, Bronchial  | Leukemia Mononuclear                       |                |
| * Lymph Node, Mandibular   | Leukemia Mononuclear                       |                |
| * Lymph Node, Mediastinal<br>[ Leukemia Mononuclear TGLS = 2-5 ]                                 | Leukemia Mononuclear                       |                |
| * Mammary Gland<br><br>[ Fibroadenoma TGLS = 1-12 ]<br>[ Galactocele TGLS = 1-12 ]               | Fibroadenoma<br>Galactocele<br>Hyperplasia | Marked<br>Mild |
| * Ovary  | Leukemia Mononuclear                       |                |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 266 | <b>TRT#:</b> 7       | <b>SEX:</b> Female              | <b>DAY ON TEST:</b> 694   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-266 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                   |               |                      |         |
|-------------------|---------------|----------------------|---------|
| * Pancreas        |               | Leukemia Mononuclear |         |
| * Pituitary Gland | Pars Distalis | Angiectasis          | Mild    |
|                   |               | Leukemia Mononuclear |         |
| * Spleen          |               | Leukemia Mononuclear |         |
| * Thymus          |               | Leukemia Mononuclear |         |
| * Uterus          |               | Inflammation         | Minimal |
|                   |               | Leukemia Mononuclear |         |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 267

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-267

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mediastinal   | * Mammary Gland          | * Nose                     | * Pancreas                |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   |                           |

OBSERVATIONS

|                          |               |                           |         |
|--------------------------|---------------|---------------------------|---------|
| * Kidney                 |               | Nephropathy               | Mild    |
| * Liver                  |               | Basophilic Focus          | Minimal |
|                          |               | Vacuolization Cytoplasmic | Minimal |
| * Lymph Node, Mesenteric |               | Hemorrhage                | Mild    |
| * Ovary                  |               | Cyst                      | Mild    |
| * Pituitary Gland        | Pars Distalis | Adenoma                   |         |
| [ Adenoma TGLS = 1-1 ]   |               |                           |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 268

TRT#: 7

SEX: Female

DAY ON TEST: 736

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-268

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

OBSERVATIONS

|                              |               |                           |          |
|------------------------------|---------------|---------------------------|----------|
| * Clitoral Gland             |               | Inflammation              | Moderate |
| * Kidney                     |               | Nephropathy               | Minimal  |
| * Liver                      |               | Basophilic Focus          | Minimal  |
|                              |               | Vacuolization Cytoplasmic | Minimal  |
| * Lymph Node, Mediastinal    |               | Hemorrhage                | Mild     |
|                              |               | Pigmentation              | Mild     |
| * Mammary Gland              |               | Fibroadenoma              |          |
|                              |               | Hyperplasia               | Mild     |
| [ Fibroadenoma TGLS = 1-12 ] |               |                           |          |
| Mesentery                    | Fat           | Necrosis                  | Mild     |
| [ Necrosis TGLS = 2-13 ]     |               |                           |          |
| * Pituitary Gland            | Pars Distalis | Adenoma                   |          |
| [ Adenoma TGLS = 3-1 ]       |               |                           |          |
| * Skin                       | Subcut Tiss   | Inflammation              | Mild     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 269

TRT#: 7

SEX: Female

DAY ON TEST: 651

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-269

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                             |                            |
|--------------------------|---------------------------|-----------------------------|----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla         | * Blood Vessel              | * Bone                     |
| * Brain                  | * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum   |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Kidney                  | * Larynx                    | * Lung                     |
| * Ovary                  | * Parathyroid Gland       | * Salivary Glands           | * Skin                     |
| * Stomach, Forestomach   | * Stomach, Glandular      | * Trachea                   | * Urinary Bladder          |
| * Uterus                 |                           |                             |                            |

MISSING

- |                         |          |
|-------------------------|----------|
| * Lymph Node, Bronchial | * Thymus |
|-------------------------|----------|

OBSERVATIONS

- |                           |                |                  |                              |
|---------------------------|----------------|------------------|------------------------------|
| * Bone Marrow             |                | Hyperplasia      | Moderate                     |
| * Heart                   | Endocardium    | Hyperplasia      | Mild                         |
|                           | Atrium         | Inflammation     | Moderate                     |
| * Intestine Small, Ileum  |                | Hyperplasia      | Moderate                     |
|                           |                | Inflammation     | Marked                       |
|                           |                |                  | [ Hyperplasia TGLS = 5-13 ]  |
|                           |                |                  | [ Inflammation TGLS = 5-13 ] |
| * Liver                   |                | Basophilic Focus | Minimal                      |
| * Lymph Node, Mandibular  |                | Hyperplasia      | Plasma Cell, Mild            |
| * Lymph Node, Mediastinal |                | Hemorrhage       | Mild                         |
| * Lymph Node, Mesenteric  |                | Ectasia          | Moderate                     |
|                           |                | Hyperplasia      | Plasma Cell, Moderate        |
|                           |                |                  | [ Ectasia TGLS = 6-8 ]       |
|                           |                |                  | [ Hyperplasia TGLS = 6-8 ]   |
| * Mammary Gland           |                | Fibroadenoma     |                              |
|                           |                |                  | [ Fibroadenoma TGLS = 2-12 ] |
| * Nose                    | Respirat Epith | Hyperplasia      | Minimal                      |
|                           |                | Inflammation     | Mild                         |
|                           |                | Necrosis         | Mild                         |
| * Pancreas                | Acinus         | Atrophy          | Minimal                      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:35

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 269

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 651

**DOSE:** 250 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-269

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Pituitary Gland

Pars Distalis

Cyst

Minimal

\* Spleen

Hematopoietic Cell Proliferation

Moderate

[ Hematopoietic Cell Proliferation TGLS = 1-5 ]

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 270

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-270

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |

**OBSERVATIONS**

|                                     |               |                           |          |
|-------------------------------------|---------------|---------------------------|----------|
| * Adrenal Cortex                    |               | Vacuolization Cytoplasmic | Mild     |
| * Kidney                            | Renal Tubule  | Hyperplasia               | Moderate |
|                                     |               | Nephropathy               | Mild     |
| * Liver                             |               | Basophilic Focus          | Minimal  |
|                                     |               | Leukemia Mononuclear      |          |
|                                     |               |                           |          |
| [ Basophilic Focus TGLS = 6-5.1 ]   |               |                           |          |
| * Lymph Node, Mandibular            |               | Leukemia Mononuclear      |          |
|                                     |               |                           |          |
| [ Leukemia Mononuclear TGLS = 4-2 ] |               |                           |          |
| * Lymph Node, Mediastinal           |               | Leukemia Mononuclear      |          |
| Mesentery                           | Fat           | Necrosis                  | Moderate |
|                                     |               |                           |          |
| [ Necrosis TGLS = 1-12 ]            |               |                           |          |
| * Pituitary Gland                   | Pars Distalis | Adenoma                   |          |
|                                     |               |                           |          |
| [ Adenoma TGLS = 2-1 ]              |               |                           |          |
| * Spleen                            |               | Leukemia Mononuclear      |          |
| * Uterus                            |               | Polyp Stromal             |          |
|                                     |               |                           |          |
| [ Polyp Stromal TGLS = 7-9 ]        |               |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 271

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-271

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           |
| * Nose                      | * Ovary                  | * Salivary Glands          | * Skin                    |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          |                           |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                           |                |                                    |          |
|---------------------------|----------------|------------------------------------|----------|
| * Kidney                  |                | Nephropathy                        | Mild     |
| * Liver                   |                | Basophilic Focus                   | Minimal  |
|                           |                | Vacuolization Cytoplasmic          | Minimal  |
| * Lung                    | Alveolar Epith | Hyperplasia                        | Minimal  |
| * Lymph Node, Bronchial   |                | Hemorrhage                         | Minimal  |
|                           |                | Pigmentation                       | Minimal  |
| * Lymph Node, Mediastinal |                | Pigmentation                       | Minimal  |
| * Pancreas                | Acinus         | Atrophy                            | Mild     |
| * Pituitary Gland         | Pars Distalis  | Hyperplasia                        | Moderate |
|                           |                | [ Hyperplasia TGLS = 3-1 ]         |          |
| * Uterus                  | Bilateral      | Polyp Stromal                      |          |
|                           |                | [ Polyp Stromal TGLS = 1-9; 2-12 ] |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 272

TRT#: 7

SEX: Female

DAY ON TEST: 449

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-272

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                          |                          |
|-----------------------------|--------------------------|--------------------------|--------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel           | * Bone                   |
| * Bone Marrow               | * Brain                  | * Clitoral Gland         | * Esophagus              |
| Eye                         | * Heart                  | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Small, Duodenum | * Islets, Pancreatic     | * Liver                  | * Lung                   |
| * Lymph Node, Mandibular    | * Lymph Node, Mesenteric | * Nose                   | * Ovary                  |
| * Pancreas                  | * Parathyroid Gland      | * Salivary Glands        | * Skin                   |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular     | * Thymus                 |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder        | * Uterus                 |

MISSING

|          |                         |
|----------|-------------------------|
| * Larynx | * Lymph Node, Bronchial |
|----------|-------------------------|

AUTO PRECLUDES DIAG.

|                           |                          |                            |
|---------------------------|--------------------------|----------------------------|
| * Intestine Large, Rectum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
|---------------------------|--------------------------|----------------------------|

OBSERVATIONS

|  |               |                |          |
|--|---------------|----------------|----------|
| * Brain  |               |                |          |
| Note: The brain is mildly compressed by the pituitary tumor. |               |                |          |
| * Kidney   |               | Mineralization | Mild     |
|  |               | Nephropathy    | Moderate |
| * Lymph Node, Mediastinal                                    |               | Pigmentation   | Mild     |
| * Mammary Gland  |               | Hyperplasia    | Mild     |
| * Pituitary Gland  | Pars Distalis | Adenoma        |          |
| [ Adenoma TGLS = 2-1 ]                                       |               |                |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 273

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-273

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Nose                   | * Ovary                    | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

OBSERVATIONS

|  |               |                            |          |
|--|---------------|----------------------------|----------|
| * Clitoral Gland                           |               | Inflammation               | Mild     |
| * Kidney                                   |               | Nephropathy                | Minimal  |
| * Liver                                    |               | Basophilic Focus           | Minimal  |
|  |               | Eosinophilic Focus         | Moderate |
|  |               | Hepatodiaphragmatic Nodule | Mild     |
| [ Hepatodiaphragmatic Nodule TGLS = 6-15 ] |               |                            |          |
| * Lymph Node, Mediastinal                  |               | Pigmentation               | Minimal  |
| * Mammary Gland                            |               | Fibroadenoma               | Multiple |
|  |               | Hyperplasia                | Minimal  |
| [ Fibroadenoma TGLS = 1-12; 3-13; 4-14 ]   |               |                            |          |
| * Pancreas                                 | Acinus        | Atrophy                    | Minimal  |
| * Parathyroid Gland                        |               | Hyperplasia                | Minimal  |
| [ Hyperplasia TGLS = 5-3 ]                 |               |                            |          |
| * Pituitary Gland                          | Pars Distalis | Hyperplasia                | Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 274

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 662

**DOSE:** 250 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-274

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                             |                           |                            |
|---------------------------|-----------------------------|---------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                    | * Brain                    |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum  | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum  | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lymph Node, Bronchial     | * Lymph Node, Mediastinal | * Nose                     |
| * Ovary                   | * Parathyroid Gland         | * Salivary Glands         | * Skin                     |
| * Thymus                  | * Thyroid Gland             | * Trachea                 | * Urinary Bladder          |
| * Uterus                  |                             |                           |                            |

**OBSERVATIONS**

|                          |               |                                      |          |
|--------------------------|---------------|--------------------------------------|----------|
| * Adrenal Cortex         |               | Vacuolization Cytoplasmic            | Moderate |
| * Bone Marrow            | Myeloid Cell  | Hyperplasia                          | Moderate |
| * Clitoral Gland         |               | Inflammation                         | Mild     |
| * Kidney                 |               | Nephropathy                          | Mild     |
| * Larynx                 |               | Leukemia Mononuclear                 |          |
| * Liver                  |               | Leukemia Mononuclear                 |          |
| * Lung                   |               | Leukemia Mononuclear                 |          |
| Lymph Node               | Pancreatic    | Hemorrhage                           | Moderate |
|                          | Pancreatic    | Leukemia Mononuclear                 |          |
|                          | Renal         | Leukemia Mononuclear                 |          |
|                          |               | [ Leukemia Mononuclear TGLS = 8-12 ] |          |
|                          |               | [ Leukemia Mononuclear TGLS = 7-12 ] |          |
| * Lymph Node, Mandibular |               | Leukemia Mononuclear                 |          |
| * Lymph Node, Mesenteric |               | Hemorrhage                           | Moderate |
| * Mammary Gland          |               | Carcinoma                            |          |
|                          |               | [ Carcinoma TGLS = 1-14 ]            |          |
| Mesentery                | Fat           | Necrosis                             | Mild     |
|                          |               | [ Necrosis TGLS = 2-13 ]             |          |
| * Pancreas               | Acinus        | Atrophy                              | Minimal  |
| * Pituitary Gland        | Pars Distalis | Adenoma                              |          |
|                          |               | [ Adenoma TGLS = 5-1 ]               |          |
| * Spleen                 |               | Leukemia Mononuclear                 |          |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 274 | <b>TRT#:</b> 7       | <b>SEX:</b> Female         | <b>DAY ON TEST:</b> 662   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-274 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |                      |          |
|------------------------|----------------------|----------|
| * Stomach, Forestomach | Hyperplasia          | Moderate |
|                        | Leukemia Mononuclear |          |
| * Stomach, Glandular   | Necrosis             | Mild     |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 275

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-275

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    | * Nose                   |
| * Ovary                    | * Parathyroid Gland       | * Salivary Glands           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           | * Uterus                 |

MISSING

\* Clitoral Gland

OBSERVATIONS

|   |               |                           |                              |
|---|---------------|---------------------------|------------------------------|
| * Brain<br>[ Carcinoma TGLS = 5-1 ]           |               | Carcinoma                 | Metastatic (Pituitary Gland) |
| * Kidney<br>[ Nephropathy TGLS = 3-7 ]        |               | Nephropathy               | Moderate                     |
| * Liver                                       |               | Basophilic Focus          | Minimal                      |
|   |               | Vacuolization Cytoplasmic | Moderate                     |
| * Lymph Node, Mediastinal                     |               | Pigmentation              | Minimal                      |
| * Mammary Gland                               |               | Fibroadenoma              | Multiple                     |
|   |               | Galactocele               | Mild                         |
|   |               | Hyperplasia               | Minimal                      |
|   |               |                           |                              |
| * Pancreas                                    | Artery        | Inflammation              | Mild                         |
| * Pituitary Gland<br>[ Carcinoma TGLS = 4-1 ] | Pars Distalis | Carcinoma                 |                              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 276

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-276

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Clitoral Gland           |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Parathyroid Gland         | * Salivary Glands        | * Skin                     |
| * Stomach, Glandular      | * Thyroid Gland             | * Trachea                | * Urinary Bladder          |
| * Uterus                  |                             |                          |                            |

**MISSING**

\* Larynx

**OBSERVATIONS**

|   |        |                      |      |
|---|--------|----------------------|------|
| * Adrenal Cortex  |        | Leukemia Mononuclear |      |
| * Adrenal Medulla   |        | Leukemia Mononuclear |      |
| * Bone Marrow   |        | Leukemia Mononuclear |      |
| * Kidney  |        | Leukemia Mononuclear |      |
|   |        | Nephropathy          | Mild |
| * Larynx  |        |                      |      |
| Note: The larynx is present, but the correct section for evaluation was not obtained. |        |                      |      |
| * Liver   |        | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 6-5 ]   |        |                      |      |
| * Lung  |        | Leukemia Mononuclear |      |
| * Lymph Node, Bronchial   |        | Leukemia Mononuclear |      |
| * Lymph Node, Mandibular  |        | Leukemia Mononuclear |      |
| * Lymph Node, Mediastinal   |        | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 3-5 ]   |        |                      |      |
| * Lymph Node, Mesenteric  |        | Leukemia Mononuclear |      |
| * Mammary Gland   |        | Fibroadenoma         |      |
|   |        | Galactocele          | Mild |
| [ Fibroadenoma TGLS = 1-12 ]  |        |                      |      |
| * Nose  | Glands | Hyperplasia          | Mild |
|   |        | Inflammation         | Mild |
|   |        | Leukemia Mononuclear |      |

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 276

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-276

**ORGAN AND ACCOUNTABLE SITE STATUS**

|                        |                                     |                      |      |
|------------------------|-------------------------------------|----------------------|------|
| * Ovary                |                                     | Leukemia Mononuclear |      |
| * Pancreas             | Acinus                              | Atrophy              | Mild |
| * Pituitary Gland      | Pars Distalis                       | Adenoma              |      |
|                        | Pars Distalis                       | Leukemia Mononuclear |      |
|                        | [ Adenoma TGLS = 4-1 ]              |                      |      |
|                        | [ Leukemia Mononuclear TGLS = 4-1 ] |                      |      |
| * Spleen               |                                     | Leukemia Mononuclear |      |
|                        | [ Leukemia Mononuclear TGLS = 2-5 ] |                      |      |
| * Stomach, Forestomach |                                     | Leukemia Mononuclear |      |
| * Thymus               |                                     | Leukemia Mononuclear |      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 277

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-277

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric |
| * Nose                     | * Ovary                   | * Pancreas                  | * Parathyroid Gland      |
| * Salivary Glands          | * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           | * Uterus                 |

MISSING

\* Thymus

OBSERVATIONS

|                              |               |                      |         |
|------------------------------|---------------|----------------------|---------|
| * Adrenal Cortex             |               | Angiectasis          | Mild    |
|                              |               | Hypertrophy          | Mild    |
| * Clitoral Gland             |               | Hyperplasia          | Mild    |
| [ Hyperplasia TGLS = 1-9 ]   |               |                      |         |
| * Kidney                     |               | Nephropathy          | Mild    |
| * Liver                      |               | Basophilic Focus     | Minimal |
|                              |               | Leukemia Mononuclear |         |
|                              |               | Fibroadenoma         |         |
| * Mammary Gland              |               |                      |         |
| [ Fibroadenoma TGLS = 2-12 ] |               |                      |         |
| * Pituitary Gland            | Pars Distalis | Hyperplasia          | Mild    |
| * Spleen                     |               | Leukemia Mononuclear |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 278

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 699

HISTO: 90-5201-278

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | * Blood Vessel           | * Bone                     | * Brain                   |
| * Clitoral Gland            | * Esophagus              | * Intestine Large, Cecum   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Larynx                  |
| * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

OBSERVATIONS

|                                     |   |          |
|-------------------------------------|---|----------|
| * Adrenal Cortex                    | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Mild     |
| * Bone Marrow                       | Leukemia Mononuclear                              |          |
| * Heart                             | Leukemia Mononuclear                              |          |
| * Intestine Large, Colon            | Leukemia Mononuclear                              |          |
| * Islets, Pancreatic                | Adenoma   |          |
| * Kidney                            | Leukemia Mononuclear<br>Nephropathy               | Minimal  |
| * Liver                             | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 3-5 ] |   |          |
| * Lung                              | Leukemia Mononuclear                              |          |
| * Lymph Node, Bronchial             | Leukemia Mononuclear                              |          |
| * Lymph Node, Mandibular            | Leukemia Mononuclear                              |          |
| * Lymph Node, Mediastinal           | Leukemia Mononuclear                              |          |
| * Lymph Node, Mesenteric            | Leukemia Mononuclear                              |          |
| * Mammary Gland                     | Fibroadenoma                                      |          |
| [ Fibroadenoma TGLS = 1-13 ]        |   |          |
| * Nose                              | Leukemia Mononuclear                              |          |
| * Ovary                             | Cyst  | Minimal  |
| * Pituitary Gland                   | Leukemia Mononuclear                              |          |
| * Spleen                            | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 2-5 ] |   |          |
| * Stomach, Forestomach              | Hyperplasia                                       | Moderate |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 278

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 699

**DOSE:** 250 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-278

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**ORGAN AND ACCOUNTABLE SITE STATUS**

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 279

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-279

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Ovary                  | * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

OBSERVATIONS

|                           |                |   |  |
|---------------------------|----------------|---|--|
| * Adrenal Cortex          |                | Cytoplasmic Alteration<br>Degeneration<br>Hypertrophy | Moderate<br>Cystic, Minimal<br>Minimal |
| * Kidney                  |                | Nephropathy<br>Pigmentation                           | Mild<br>Minimal                        |
| * Liver                   |                | Basophilic Focus<br>Eosinophilic Focus                | Minimal<br>Minimal                     |
| * Lung                    |                | Infiltration Cellular                                 | Histiocyte, Minimal                    |
| * Lymph Node, Bronchial   |                | Pigmentation  | Minimal                                |
| * Lymph Node, Mandibular  |                | Ectasia   | Mild                                   |
| * Lymph Node, Mediastinal |                | Pigmentation  | Minimal                                |
| * Lymph Node, Mesenteric  |                | Hemorrhage  | Minimal                                |
| * Mammary Gland           |                | Galactocele   | Minimal                                |
| * Nose                    | Glands         | Hyperplasia   | Mild                                   |
|                           | Respirat Epith | Hyperplasia   | Mild                                   |
|                           |                | Inflammation  | Minimal                                |
| * Pituitary Gland         | Pars Distalis  | Angiectasis   | Moderate                               |
|                           |                | [ Angiectasis TGLS = 1-1 ]                            |  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 280

TRT#: 7

SEX: Female

DAY ON TEST: 736

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-280

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Ovary                    | * Pancreas                | * Salivary Glands           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Trachea                  | * Urinary Bladder         |                             |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                            |               |               |                  |
|----------------------------|---------------|---------------|------------------|
| * Bone                     |               | Hyperostosis  | Mild             |
| * Kidney                   |               | Nephropathy   | Minimal          |
| * Liver                    |               | Inflammation  | Chronic, Minimal |
| * Lymph Node, Bronchial    |               | Pigmentation  | Minimal          |
| * Lymph Node, Mediastinal  |               | Pigmentation  | Mild             |
| * Pituitary Gland          | Pars Distalis | Angiectasis   | Moderate         |
| [ Angiectasis TGLS = 2-1 ] |               |               |                  |
| * Thyroid Gland            |               | Hyperplasia   | Minimal          |
| * Uterus                   |               | Polyp Stromal |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 281

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-281

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                    |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Bronchial    |
| * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Ovary                    |
| * Parathyroid Gland       | * Salivary Glands           | * Spleen                 | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Trachea                | * Urinary Bladder          |
| * Uterus                  |                             |                          |                            |

**MISSING**

\* Clitoral Gland

**OBSERVATIONS**

|  |                |                           |          |
|--|----------------|---------------------------|----------|
| * Adrenal Cortex                         |                | Hemorrhage                | Mild     |
|  |                | Vacuolization Cytoplasmic | Moderate |
| [ Vacuolization Cytoplasmic TGLS = 3-3 ] |                |                           |          |
| * Bone Marrow                            |                | Hyperplasia               | Mild     |
| * Kidney                                 |                | Nephropathy               | Minimal  |
| * Liver                                  |                | Basophilic Focus          | Minimal  |
|  |                | Vacuolization Cytoplasmic | Mild     |
| [ Vacuolization Cytoplasmic TGLS = 4-5 ] |                |                           |          |
| * Mammary Gland                          |                | Fibroadenoma              |          |
|  |                | Galactocele               | Mild     |
|  |                | Hyperplasia               | Moderate |
| [ Fibroadenoma TGLS = 1-12 ]             |                |                           |          |
| [ Galactocele TGLS = 2-13 ]              |                |                           |          |
| [ Hyperplasia TGLS = 1-12,13 ]           |                |                           |          |
| * Nose                                   | Respirat Epith | Hyperplasia               | Minimal  |
| * Pancreas                               | Acinus         | Atrophy                   | Mild     |
| * Pituitary Gland                        | Pars Distalis  | Adenoma                   |          |
| [ Adenoma TGLS = 5-1 ]                   |                |                           |          |
| * Skin                                   |                | Cyst Epithelial Inclusion | Moderate |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 281 | <b>TRT#:</b> 7       | <b>SEX:</b> Female              | <b>DAY ON TEST:</b> 735   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-281 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |        |             |      |
|---|--------|-------------|------|
| [ Cyst Epithelial Inclusion TGLS = 2-13 ] |        |             |      |
| * Thyroid Gland                           | C Cell | Hyperplasia | Mild |
| PRIMARY CAUSE OF DEATH                    | -      |             |      |

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 282

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-282

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

OBSERVATIONS

|                              |               |                  |          |
|------------------------------|---------------|------------------|----------|
| * Bone                       |               | Hyperostosis     | Moderate |
| * Kidney                     |               | Nephropathy      | Minimal  |
| * Liver                      |               | Basophilic Focus | Minimal  |
| * Lymph Node, Mediastinal    |               | Hemorrhage       | Minimal  |
|                              |               | Pigmentation     | Mild     |
| * Mammary Gland              |               | Fibroadenoma     |          |
|                              |               | Hyperplasia      | Mild     |
|                              |               |                  |          |
| [ Fibroadenoma TGLS = 1-12 ] |               |                  |          |
| * Pituitary Gland            | Pars Distalis | Adenoma          |          |
|                              |               |                  |          |
| [ Adenoma TGLS = 2-1 ]       |               |                  |          |
| * Thyroid Gland              | C Cell        | Hyperplasia      | Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 283

TRT#: 7

SEX: Female

DAY ON TEST: 709

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-283

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Ovary                  | * Pancreas                 | * Salivary Glands         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Trachea                | * Urinary Bladder          | * Uterus                  |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                           |                |  |                   |
|---------------------------|----------------|--|-------------------|
| * Kidney                  |                | Nephropathy                              | Mild              |
| * Liver                   |                | Basophilic Focus                         | Mild              |
|                           |                | Eosinophilic Focus                       | Mild              |
|                           |                | Vacuolization Cytoplasmic                | Mild              |
|                           |                | [ Basophilic Focus TGLS = 4-5 ]          |                   |
|                           |                | [ Eosinophilic Focus TGLS = 4-5 ]        |                   |
|                           |                | [ Vacuolization Cytoplasmic TGLS = 4-5 ] |                   |
| * Lung                    |                | Fibrosis                                 | Minimal           |
| * Lymph Node, Bronchial   |                | Pigmentation                             | Minimal           |
| * Lymph Node, Mandibular  |                | Hyperplasia                              | Plasma Cell, Mild |
| * Lymph Node, Mediastinal |                | Pigmentation                             | Mild              |
| * Lymph Node, Mesenteric  |                | Hemorrhage                               | Mild              |
| * Mammary Gland           |                | Galactocele                              | Minimal           |
| * Nose                    | Respirat Epith | Hyperplasia                              | Minimal           |
| * Pituitary Gland         | Pars Distalis  | Adenoma                                  |                   |
|                           |                | [ Adenoma TGLS = 2-1 ]                   |                   |
| * Thyroid Gland           | Follicle       | Cyst                                     | Mild              |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 284

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 674

HISTO: 90-5201-284

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                |                           |                      |                     |
|----------------|---------------------------|----------------------|---------------------|
| * Blood Vessel | * Bone                    | * Brain              | * Clitoral Gland    |
| * Esophagus    | * Intestine Large, Rectum | * Islets, Pancreatic | * Parathyroid Gland |
| * Skin         |                           |                      |                     |

OBSERVATIONS

|                                      |       |   |          |
|--------------------------------------|-------|---|----------|
| * Adrenal Cortex                     |       | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Mild     |
| * Adrenal Medulla                    |       | Leukemia Mononuclear                              |          |
| * Bone Marrow                        |       | Hyperplasia                                       | Moderate |
| * Heart                              |       | Leukemia Mononuclear                              |          |
| * Intestine Large, Cecum             |       | Leukemia Mononuclear                              |          |
| * Intestine Large, Colon             |       | Leukemia Mononuclear                              |          |
| * Intestine Small, Duodenum          |       | Leukemia Mononuclear                              |          |
| * Intestine Small, Ileum             |       | Leukemia Mononuclear                              |          |
| * Intestine Small, Jejunum           |       | Leukemia Mononuclear                              |          |
| * Kidney                             |       | Leukemia Mononuclear                              |          |
| * Larynx                             |       | Leukemia Mononuclear                              |          |
| * Liver                              |       | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 3-5 ]  |       |   |          |
| * Lung                               |       | Leukemia Mononuclear                              |          |
| Lymph Node                           | Renal | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 4-12 ] |       |   |          |
| * Lymph Node, Bronchial              |       | Leukemia Mononuclear                              |          |
| * Lymph Node, Mandibular             |       | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 1-2 ]  |       |   |          |
| * Lymph Node, Mediastinal            |       | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 7-5 ]  |       |   |          |
| * Lymph Node, Mesenteric             |       | Leukemia Mononuclear                              |          |
| [ Leukemia Mononuclear TGLS = 6-8 ]  |       |   |          |
| * Mammary Gland                      |       | Hyperplasia                                       | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 284 | <b>TRT#:</b> 7       | <b>SEX:</b> Female              | <b>DAY ON TEST:</b> 674   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-284 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |        |                      |          |
|-------------------------------------|--------|----------------------|----------|
| Mesentery                           |        | Leukemia Mononuclear |          |
|                                     | Fat    | Necrosis             | Moderate |
| [ Necrosis TGLS = 8-13 ]            |        |                      |          |
| * Nose                              | Glands | Cyst                 | Mild     |
| * Ovary                             |        | Leukemia Mononuclear |          |
| * Pancreas                          |        | Leukemia Mononuclear |          |
| * Pituitary Gland                   |        | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 9-1 ] |        |                      |          |
| * Salivary Glands                   |        | Leukemia Mononuclear |          |
| * Spleen                            |        | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-5 ] |        |                      |          |
| * Stomach, Forestomach              |        | Leukemia Mononuclear |          |
| * Stomach, Glandular                |        | Leukemia Mononuclear |          |
| * Thymus                            |        | Leukemia Mononuclear |          |
| * Thyroid Gland                     |        | Leukemia Mononuclear |          |
| * Trachea                           |        | Leukemia Mononuclear |          |
| * Urinary Bladder                   |        | Leukemia Mononuclear |          |
| * Uterus                            |        | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 5-9 ] |        |                      |          |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 285

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-285

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Lymph Node, Mediastinal  | * Nose                    | * Ovary                     |
| * Pancreas               | * Salivary Glands          | * Skin                    | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

MISSING

- \* Parathyroid Gland

OBSERVATIONS

- |                                     |               |                           |          |
|-------------------------------------|---------------|---------------------------|----------|
| * Adrenal Cortex                    |               | Vacuolization Cytoplasmic | Moderate |
| Eye                                 | Lens          | Cataract                  | Mild     |
| [ Cataract TGLS = 2-12 ]            |               |                           |          |
| * Kidney                            |               | Nephropathy               | Mild     |
|                                     |               | Pigmentation              | Minimal  |
| * Liver                             |               | Basophilic Focus          | Minimal  |
|                                     |               | Mixed Cell Focus          | Mild     |
| [ Mixed Cell Focus TGLS = 3,4-5.1 ] |               |                           |          |
| * Lung                              |               | Hemorrhage                | Minimal  |
| * Lymph Node, Bronchial             |               | Hemorrhage                | Minimal  |
|                                     |               | Pigmentation              | Minimal  |
| * Lymph Node, Mesenteric            |               | Hemorrhage                | Minimal  |
| * Mammary Gland                     |               | Hyperplasia               | Mild     |
| * Pituitary Gland                   | Pars Distalis | Angiectasis               | Mild     |
| [ Angiectasis TGLS = 1-1 ]          |               |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 286

TRT#: 7

SEX: Female

DAY ON TEST: 602

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-286

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                        |                         |                          |               |
|------------------------|-------------------------|--------------------------|---------------|
| * Adrenal Medulla      | * Blood Vessel          | * Bone                   | * Bone Marrow |
| * Brain                | * Clitoral Gland        | * Esophagus              | * Heart       |
| * Islets, Pancreatic   | * Lymph Node, Bronchial | * Lymph Node, Mandibular | * Ovary       |
| * Pancreas             | * Salivary Glands       | * Skin                   | * Spleen      |
| * Stomach, Forestomach | * Stomach, Glandular    | * Thyroid Gland          | * Trachea     |
| * Uterus               |                         |                          |               |

MISSING

- |          |                     |          |
|----------|---------------------|----------|
| * Larynx | * Parathyroid Gland | * Thymus |
|----------|---------------------|----------|

AUTO PRECLUDES DIAG.

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Urinary Bladder         |                             |

OBSERVATIONS

- |                           |                                   |                           |                        |
|---------------------------|-----------------------------------|---------------------------|------------------------|
| * Adrenal Cortex          |                                   | Vacuolization Cytoplasmic | Minimal                |
| * Kidney                  |                                   | Nephropathy               | Mild                   |
| * Liver                   |                                   | Basophilic Focus          | Minimal                |
|                           |                                   | Eosinophilic Focus        | Mild                   |
|                           | [ Basophilic Focus TGLS = 2-5 ]   |                           |                        |
|                           | [ Eosinophilic Focus TGLS = 1-5 ] |                           |                        |
| * Lung                    |                                   | Hemorrhage                | Minimal                |
|                           |                                   | Inflammation              | Granulomatous, Minimal |
| * Lymph Node, Mediastinal |                                   | Pigmentation              | Minimal                |
| * Lymph Node, Mesenteric  |                                   | Hemorrhage                | Moderate               |
| * Mammary Gland           |                                   | Galactocele               | Mild                   |
| * Nose                    | Respirat Epith                    | Hyperplasia               | Minimal                |
| * Pituitary Gland         | Pars Distalis                     | Adenoma                   |                        |
|                           | [ Adenoma TGLS = 5-1 ]            |                           |                        |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 287

TRT#: 7

SEX: Female

DAY ON TEST: 685

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-287

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                    |
| * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mandibular | * Lymph Node, Mediastinal  |
| * Nose                    | * Ovary                     | * Pancreas               | * Salivary Glands          |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                         |              |  |                      |
|-------------------------|--------------|--|----------------------|
| * Adrenal Cortex        |              | Hemorrhage                               | Mild                 |
|                         |              | Pigmentation                             | Mild                 |
|                         |              | Vacuolization Cytoplasmic                | Mild                 |
| * Bone Marrow           |              | Hyperplasia                              | Moderate             |
| * Heart                 |              | Inflammation                             | Moderate             |
| * Kidney                | Renal Tubule | Degeneration                             | Moderate             |
|                         |              | Nephropathy                              | Mild                 |
|                         |              | Pigmentation                             | Moderate             |
| * Liver                 |              | Degeneration                             | Moderate             |
|                         |              | Necrosis                                 | Mild                 |
|                         |              | Vacuolization Cytoplasmic                | Mild                 |
|                         |              | [ Degeneration TGLS = 3-5 ]              |                      |
|                         |              | [ Necrosis TGLS = 3-5 ]                  |                      |
|                         |              | [ Vacuolization Cytoplasmic TGLS = 3-5 ] |                      |
| * Lung                  |              | Inflammation                             | Chronic Active, Mild |
|                         |              | [ Inflammation TGLS = 4-6 ]              |                      |
| * Lymph Node, Bronchial |              | Ectasia                                  | Mild                 |
|                         |              | Hemorrhage                               | Minimal              |
|                         |              | Infiltration Cellular                    | Histiocyte, Moderate |
|                         |              | Necrosis                                 | Moderate             |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 287 | <b>TRT#:</b> 7       | <b>SEX:</b> Female              | <b>DAY ON TEST:</b> 685   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-287 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |               |                                  |         |
|---|---------------|----------------------------------|---------|
| [ Ectasia TGLS = 6-3 ]                          |               |                                  |         |
| [ Infiltration Cellular TGLS = 6-3 ]            |               |                                  |         |
| * Lymph Node, Mesenteric                        |               | Inflammation                     | Mild    |
| * Mammary Gland                                 |               | Fibroadenoma                     |         |
|   |               | Hyperplasia                      | Minimal |
| [ Fibroadenoma TGLS = 1-12 ]                    |               |                                  |         |
| * Pituitary Gland                               | Pars Distalis | Adenoma                          |         |
| [ Adenoma TGLS = 5-1 ]                          |               |                                  |         |
| * Spleen  |               | Hematopoietic Cell Proliferation | Mild    |
| [ Hematopoietic Cell Proliferation TGLS = 2-5 ] |               |                                  |         |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 288

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-288

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal |
| * Lymph Node, Mesenteric    | * Nose                   | * Pancreas                 | * Salivary Glands         |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          | * Uterus                  |

OBSERVATIONS

|                     |  |                            |         |
|---------------------|--|----------------------------|---------|
| * Kidney            |  | Nephropathy                | Mild    |
|                     |  | Pigmentation               | Minimal |
| * Larynx            | Respirat Epith                             | Hyperplasia                | Minimal |
| * Liver             |  | Basophilic Focus           | Minimal |
|                     |  | Hepatodiaphragmatic Nodule | Mild    |
|                     | [ Hepatodiaphragmatic Nodule TGLS = 4-14 ] |                            |         |
| * Mammary Gland     |  | Hyperplasia                | Mild    |
| * Ovary             |  | Cyst                       | Mild    |
|                     | [ Cyst TGLS = 3-9 ]                        |                            |         |
| * Parathyroid Gland |  | Hyperplasia                | Minimal |
| * Pituitary Gland   | Pars Distalis                              | Adenoma                    |         |
|                     | [ Adenoma TGLS = 5-1 ]                     |                            |         |
| * Skin              | Epidermis                                  | Hyperplasia                | Mild    |
|                     |  | Squamous Cell Papilloma    |         |
|                     | [ Hyperplasia TGLS = 1-12 ]                |                            |         |
|                     | [ Squamous Cell Papilloma TGLS = 2-13 ]    |                            |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 289

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-289

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mesenteric  | * Nose                      | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

OBSERVATIONS

|                                     |               |                           |          |
|-------------------------------------|---------------|---------------------------|----------|
| * Bone Marrow                       |               | Leukemia Mononuclear      |          |
| * Clitoral Gland                    |               | Inflammation              | Mild     |
| * Kidney                            |               | Nephropathy               | Mild     |
| [ Nephropathy TGLS = 4-7 ]          |               |                           |          |
| * Liver                             |               | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 3-5 ] |               | Vacuolization Cytoplasmic | Moderate |
| * Lymph Node, Mandibular            |               | Leukemia Mononuclear      |          |
| * Lymph Node, Mediastinal           |               | Pigmentation              | Minimal  |
| * Mammary Gland                     |               | Fibroadenoma              |          |
| [ Fibroadenoma TGLS = 1-12 ]        |               |                           |          |
| * Pancreas                          | Acinus        | Atrophy                   | Mild     |
| * Pituitary Gland                   | Pars Distalis | Adenoma                   |          |
| [ Adenoma TGLS = 5-1 ]              |               |                           |          |
| * Spleen                            |               | Leukemia Mononuclear      |          |
| [ Leukemia Mononuclear TGLS = 2-5 ] |               |                           |          |
| * Uterus                            |               | Polyp Stromal             |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 290

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-290

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal |
| * Nose                      | * Ovary                  | * Parathyroid Gland        | * Salivary Glands         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |
| * Uterus                    |                          |                            |                           |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|   |               |                           |         |
|---|---------------|---------------------------|---------|
| * Kidney  |               | Mineralization            | Minimal |
|   |               | Nephropathy               | Mild    |
| * Liver   |               | Basophilic Focus          | Minimal |
|   |               | Vacuolization Cytoplasmic | Minimal |
| Note: The "mass" on the liver was a developmental malformation (no diagnosis possible). |               |                           |         |
| * Lymph Node, Mesenteric  |               | Ectasia                   | Minimal |
| * Mammary Gland   |               | Fibroadenoma              |         |
|   |               | Hyperplasia               | Minimal |
| [ Fibroadenoma TGLS = 1-12 ]  |               |                           |         |
| [ Hyperplasia TGLS = 2-8 ]  |               |                           |         |
| * Pancreas  | Acinus        | Atrophy                   | Minimal |
| * Pituitary Gland   | Pars Distalis | Adenoma                   |         |
|   | Pars Distalis | Hyperplasia               | Marked  |
| [ Adenoma TGLS = 3-1 ]  |               |                           |         |
| [ Hyperplasia TGLS = 3-1 ]  |               |                           |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 291

TRT#: 7

SEX: Female

DAY ON TEST: 736

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-291

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Nose                   | * Ovary                    | * Pancreas                |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   |                           |

OBSERVATIONS

- |                              |               |                    |         |
|------------------------------|---------------|--------------------|---------|
| * Kidney                     |               | Nephropathy        | Mild    |
| * Liver                      |               | Basophilic Focus   | Minimal |
|                              |               | Eosinophilic Focus | Mild    |
| * Lymph Node, Mediastinal    |               | Pigmentation       | Minimal |
| * Mammary Gland              |               | Fibroadenoma       |         |
| [ Fibroadenoma TGLS = 1-12 ] |               |                    |         |
| * Pituitary Gland            | Pars Distalis | Adenoma            |         |
|                              | Pars Distalis | Hyperplasia        | Mild    |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 292

TRT#: 7

SEX: Female

DAY ON TEST: 735

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-292

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Nose                      | * Ovary                  | * Pancreas                 | * Pituitary Gland         |
| * Salivary Glands           | * Skin                   | * Spleen                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           |                          |                            |                           |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                              |                  |         |
|------------------------------|------------------|---------|
| * Kidney                     | Nephropathy      | Minimal |
|                              | Pigmentation     | Minimal |
| * Liver                      | Basophilic Focus | Minimal |
| * Lymph Node, Bronchial      | Pigmentation     | Minimal |
| * Lymph Node, Mediastinal    | Hemorrhage       | Minimal |
|                              | Pigmentation     | Mild    |
| * Mammary Gland              | Fibroadenoma     |         |
| [ Fibroadenoma TGLS = 1-12 ] |                  |         |
| * Uterus                     | Polyp Stromal    |         |
| [ Polyp Stromal TGLS = 3-9 ] |                  |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:35

**First Dose M/F:** NA / NA

**Lab:** IIT

**ANIMAL ID:** 293

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-293

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

**OBSERVATIONS**

|                            |                |                            |          |
|----------------------------|----------------|----------------------------|----------|
| * Bone Marrow              |                | Myelostromal Proliferation | Marked   |
| * Kidney                   | Renal Tubule   | Hyperplasia                | Moderate |
|                            |                | Nephropathy                | Minimal  |
| * Liver                    |                | Basophilic Focus           | Minimal  |
| * Lung                     | Alveolar Epith | Hyperplasia                | Minimal  |
| * Lymph Node, Mediastinal  |                | Hemorrhage                 | Mild     |
|                            |                | Pigmentation               | Mild     |
| * Pituitary Gland          | Pars Distalis  | Hyperplasia                | Moderate |
| [ Hyperplasia TGLS = 1-1 ] |                |                            |          |

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 294

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-294

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Kidney                    | * Larynx                 | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Ovary                  | * Salivary Glands          | * Skin                    |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        | * Uterus                   |                           |

OBSERVATIONS

|                           |                                     |                      |         |
|---------------------------|-------------------------------------|----------------------|---------|
| * Liver                   |                                     | Basophilic Focus     | Minimal |
|                           |                                     | Eosinophilic Focus   | Minimal |
|                           |                                     | Leukemia Mononuclear |         |
|                           | [ Leukemia Mononuclear TGLS = 3-5 ] |                      |         |
| * Lung                    |                                     | Leukemia Mononuclear |         |
| * Lymph Node, Mediastinal |                                     | Pigmentation         | Minimal |
| * Mammary Gland           |                                     | Galactoceles         | Minimal |
|                           |                                     | Hyperplasia          | Minimal |
|                           | [ Galactoceles TGLS = 1-8 ]         |                      |         |
|                           | [ Hyperplasia TGLS = 1-8 ]          |                      |         |
| * Nose                    |                                     | Angiectasis          | Mild    |
| * Pancreas                | Acinus                              | Atrophy              | Minimal |
| * Parathyroid Gland       |                                     | Hyperplasia          | Mild    |
| * Pituitary Gland         | Pars Distalis                       | Adenoma              |         |
|                           | [ Adenoma TGLS = 4-1 ]              |                      |         |
| * Spleen                  |                                     | Leukemia Mononuclear |         |
|                           | [ Leukemia Mononuclear TGLS = 2-5 ] |                      |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 295

TRT#: 7

SEX: Female

DAY ON TEST: 658

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-295

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Ovary                    | * Pancreas                | * Pituitary Gland           |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                           |                           |              |
|---------------------------|---------------------------|--------------|
| * Adrenal Cortex          | Degeneration              | Cystic, Mild |
|                           | Vacuolization Cytoplasmic | Minimal      |
| * Kidney                  | Nephropathy               | Mild         |
| * Liver                   | Basophilic Focus          | Minimal      |
|                           | Congestion                | Mild         |
| * Lung                    | Congestion                | Mild         |
| [ Congestion TGLS = 3-6 ] |                           |              |
| * Lymph Node, Mediastinal | Hemorrhage                | Mild         |
|                           | Pigmentation              | Minimal      |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 296

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-296

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Nose                     | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |               |                                     |         |
|---------------------------|---------------|-------------------------------------|---------|
| * Adrenal Cortex          |               | Leukemia Mononuclear                |         |
| * Kidney                  | Renal Tubule  | Hyperplasia                         | Minimal |
|                           |               | Leukemia Mononuclear                |         |
|                           |               | Nephropathy                         | Mild    |
|                           |               | [ Leukemia Mononuclear TGLS = 4-7 ] |         |
|                           |               | [ Nephropathy TGLS = 4-7 ]          |         |
| * Liver                   |               | Basophilic Focus                    | Minimal |
|                           |               | Leukemia Mononuclear                |         |
|                           |               | [ Leukemia Mononuclear TGLS = 3-5 ] |         |
| * Lung                    |               | Leukemia Mononuclear                |         |
| * Lymph Node, Mediastinal |               | Hemorrhage                          | Mild    |
|                           |               | Pigmentation                        | Minimal |
| * Lymph Node, Mesenteric  |               | Leukemia Mononuclear                |         |
| * Mammary Gland           |               | Fibroadenoma                        |         |
|                           |               | [ Fibroadenoma TGLS = 1-12 ]        |         |
| * Pituitary Gland         | Pars Distalis | Adenoma                             |         |
|                           |               | [ Adenoma TGLS = 5-1 ]              |         |
| * Spleen                  |               | Leukemia Mononuclear                |         |
|                           |               | [ Leukemia Mononuclear TGLS = 2-5 ] |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 296

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-296

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 297

TRT#: 7

DOSE: 250 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 624

HISTO: 90-5201-297

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                   |                           |                             |                      |
|-------------------|---------------------------|-----------------------------|----------------------|
| * Blood Vessel    | * Bone                    | * Brain                     | * Clitoral Gland     |
| * Esophagus       | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Islets, Pancreatic |
| * Larynx          | * Mammary Gland           | * Pancreas                  | * Salivary Glands    |
| * Skin            | * Stomach, Forestomach    | * Thyroid Gland             | * Trachea            |
| * Urinary Bladder | * Uterus                  |                             |                      |

OBSERVATIONS

- |   |          |                      |
|---|----------|----------------------|
| * Adrenal Cortex                        |          | Leukemia Mononuclear |
| * Adrenal Medulla                       |          | Leukemia Mononuclear |
| * Bone Marrow                           |          | Leukemia Mononuclear |
| * Heart                                 |          | Leukemia Mononuclear |
| * Intestine Large, Cecum                |          | Leukemia Mononuclear |
| * Intestine Large, Colon                |          | Leukemia Mononuclear |
| * Intestine Small, Ileum                |          | Leukemia Mononuclear |
| * Intestine Small, Jejunum              |          | Leukemia Mononuclear |
| * Kidney                                |          | Leukemia Mononuclear |
| * Liver                                 |          | Leukemia Mononuclear |
| [ Leukemia Mononuclear TGLS = 6-5 ]     |          |                      |
| * Lung                                  |          | Leukemia Mononuclear |
| Lymph Node                              | Inguinal | Leukemia Mononuclear |
|   | Lumbar   | Leukemia Mononuclear |
|   | Renal    | Leukemia Mononuclear |
|   |          | Leukemia Mononuclear |
| Note: Lesion #3 is axillary lymph node. |          |                      |
| [ Leukemia Mononuclear TGLS = 8-14 ]    |          |                      |
| [ Leukemia Mononuclear TGLS = 9-15 ]    |          |                      |
| [ Leukemia Mononuclear TGLS = 7-13 ]    |          |                      |
| * Lymph Node, Bronchial                 |          | Leukemia Mononuclear |
| * Lymph Node, Mandibular                |          | Leukemia Mononuclear |
| [ Leukemia Mononuclear TGLS = 1-2 ]     |          |                      |
| * Lymph Node, Mediastinal               |          | Leukemia Mononuclear |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 297 | <b>TRT#:</b> 7       | <b>SEX:</b> Female              | <b>DAY ON TEST:</b> 624   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Moribund Sacrifice | <b>HISTO:</b> 90-5201-297 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                      |               |                      |      |
|--------------------------------------|---------------|----------------------|------|
| [ Leukemia Mononuclear TGLS = 2-5 ]  |               |                      |      |
| * Lymph Node, Mesenteric             |               | Leukemia Mononuclear |      |
| * Nose                               |               | Leukemia Mononuclear |      |
| * Ovary                              |               | Leukemia Mononuclear |      |
| * Parathyroid Gland                  |               | Hyperplasia          | Mild |
| [ Hyperplasia TGLS = 4-3 ]           |               |                      |      |
| * Pituitary Gland                    | Pars Distalis | Hyperplasia          | Mild |
|                                      |               | Leukemia Mononuclear |      |
| [ Hyperplasia TGLS = 10-1 ]          |               |                      |      |
| [ Leukemia Mononuclear TGLS = 10-1 ] |               |                      |      |
| * Spleen                             |               | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 5-5 ]  |               |                      |      |
| * Stomach, Glandular                 |               | Leukemia Mononuclear |      |
| * Thymus                             |               | Leukemia Mononuclear |      |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 298

TRT#: 7

SEX: Female

DAY ON TEST: 736

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-298

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Mammary Gland            | * Nose                    |
| * Ovary                     | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          | * Uterus                  |

OBSERVATIONS

|                                    |               |                  |         |
|------------------------------------|---------------|------------------|---------|
| * Kidney                           |               | Nephropathy      | Mild    |
| * Liver                            |               | Basophilic Focus | Mild    |
|                                    |               | Clear Cell Focus | Minimal |
| [ Basophilic Focus TGLS = 2-12.1 ] |               |                  |         |
| * Pancreas                         | Acinus        | Atrophy          | Mild    |
| * Pituitary Gland                  | Pars Distalis | Adenoma          |         |
|                                    | Pars Distalis | Cyst             | Minimal |
|                                    | Pars Distalis | Hyperplasia      | Mild    |
| [ Adenoma TGLS = 1-1 ]             |               |                  |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 299

**TRT#:** 7

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 250 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-299

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Blood Vessel            | * Bone                      | * Brain                  | * Clitoral Gland           |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mesenteric | * Nose                     |
| * Pancreas                | * Parathyroid Gland         | * Salivary Glands        | * Skin                     |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 | * Trachea                  |
| * Urinary Bladder         |                             |                          |                            |

**OBSERVATIONS**

|                                     |               |                      |      |
|-------------------------------------|---------------|----------------------|------|
| * Adrenal Cortex                    |               | Carcinoma            |      |
|                                     |               | Leukemia Mononuclear |      |
| [ Carcinoma TGLS = 5-3 ]            |               |                      |      |
| * Adrenal Medulla                   |               | Leukemia Mononuclear |      |
| * Bone Marrow                       |               | Leukemia Mononuclear |      |
| * Kidney                            |               | Leukemia Mononuclear |      |
|                                     |               | Nephropathy          | Mild |
| * Liver                             |               | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 6-5 ] |               |                      |      |
| * Lung                              |               | Leukemia Mononuclear |      |
| * Lymph Node, Bronchial             |               | Leukemia Mononuclear |      |
| * Lymph Node, Mandibular            |               | Leukemia Mononuclear |      |
| * Lymph Node, Mediastinal           |               | Leukemia Mononuclear |      |
| * Mammary Gland                     |               | Fibroadenoma         |      |
|                                     |               | Galactocele          | Mild |
| [ Fibroadenoma TGLS = 1-12; 2-13 ]  |               |                      |      |
| * Ovary                             |               | Leukemia Mononuclear |      |
| * Pituitary Gland                   | Pars Distalis | Cyst                 | Mild |
|                                     | Pars Distalis | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 7-1 ] |               |                      |      |
| * Spleen                            |               | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 4-5 ] |               |                      |      |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 299 | <b>TRT#:</b> 7       | <b>SEX:</b> Female              | <b>DAY ON TEST:</b> 736   |
|                       | <b>DOSE:</b> 250 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-299 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|   |        |            |          |
|---|--------|------------|----------|
| * Thyroid Gland<br>[ Adenoma TGLS = 3-3 ] | C Cell | Adenoma    |          |
| * Uterus<br>[ Hydrometra TGLS = 9-9 ]     |        | Hydrometra | Moderate |

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 300

TRT#: 7

SEX: Female

DAY ON TEST: 486

DOSE: 250 PPM

DISP: Natural Death

HISTO: 90-5201-300

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                          |                           |                          |
|----------------------------|--------------------------|---------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla        | * Blood Vessel            | * Bone                   |
| * Brain                    | * Clitoral Gland         | * Esophagus               | * Heart                  |
| * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Lymph Node, Bronchial   | * Lymph Node, Mandibular |
| * Lymph Node, Mesenteric   | * Mammary Gland          | * Nose                    | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands        | * Skin                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                 | * Thyroid Gland           | * Trachea                |
| * Urinary Bladder          | * Uterus                 |                           |                          |

MISSING

- \* Larynx

AUTO PRECLUDES DIAG.

- \* Intestine Small, Duodenum

OBSERVATIONS

- |                           |                                     |                      |          |
|---------------------------|-------------------------------------|----------------------|----------|
| * Bone Marrow             |                                     | Leukemia Mononuclear |          |
| * Kidney                  |                                     | Mineralization       | Minimal  |
|                           |                                     | Pigmentation         | Moderate |
| * Liver                   |                                     | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 2-5 ] |                      |          |
| * Lung                    |                                     | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal |                                     | Pigmentation         | Minimal  |
| * Pancreas                | Acinus                              | Atrophy              | Mild     |
| * Pituitary Gland         | Pars Distalis                       | Angiectasis          | Mild     |
| * Spleen                  |                                     | Leukemia Mononuclear |          |
|                           | [ Leukemia Mononuclear TGLS = 1-5 ] |                      |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 351

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 629

HISTO: 90-5201-351

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                           |                             |                          |
|--------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex         | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                  | * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum |
| * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Islets, Pancreatic     | * Larynx                  | * Lung                      | * Lymph Node, Mandibular |
| * Nose                   | * Ovary                   | * Pancreas                  | * Salivary Glands        |
| * Skin                   | * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Thymus                 | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                 |                           |                             |                          |

AUTO PRECLUDES DIAG.

- \* Intestine Small, Jejunum

OBSERVATIONS

- |                            |               |                           |          |
|----------------------------|---------------|---------------------------|----------|
| * Bone Marrow              |               | Atrophy                   | Mild     |
| * Heart                    |               | Cardiomyopathy            | Mild     |
| * Kidney                   |               | Nephropathy               | Moderate |
| [ Nephropathy TGLS = 2-7 ] |               |                           |          |
| * Liver                    |               | Basophilic Focus          | Minimal  |
|                            |               | Eosinophilic Focus        | Mild     |
|                            |               | Vacuolization Cytoplasmic | Moderate |
| * Lymph Node, Bronchial    |               | Hemorrhage                | Minimal  |
|                            |               | Pigmentation              | Minimal  |
| * Lymph Node, Mediastinal  |               | Hemorrhage                | Minimal  |
|                            |               | Pigmentation              | Mild     |
| * Lymph Node, Mesenteric   |               | Hemorrhage                | Mild     |
| * Mammary Gland            |               | Galactocele               | Mild     |
| * Parathyroid Gland        |               | Hyperplasia               | Minimal  |
| [ Hyperplasia TGLS = 1-3 ] |               |                           |          |
| * Pituitary Gland          | Pars Distalis | Adenoma                   |          |
| [ Adenoma TGLS = 3-1 ]     |               |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 352

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 723

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-352

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                           |                            |                           |
|-----------------------------|---------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla         | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                   | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum  | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum  | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Liver                   | * Lung                     | * Lymph Node, Bronchial   |
| * Lymph Node, Mandibular    | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric   | * Nose                    |
| * Ovary                     | * Pancreas                | * Parathyroid Gland        | * Salivary Glands         |
| * Skin                      | * Spleen                  | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                 | * Urinary Bladder          | * Uterus                  |

**OBSERVATIONS**

|   |               |                             |                  |
|---|---------------|-----------------------------|------------------|
| * Kidney<br>[ Nephropathy TGLS = 5-7 ]                    |               | Nephropathy                 | Moderate         |
| * Mammary Gland<br>[ Fibroadenoma TGLS = 1-14;2-15;3-16 ] |               | Fibroadenoma<br>Hyperplasia | Multiple<br>Mild |
| * Pituitary Gland<br>[ Angiectasis TGLS = 7-1 ]           | Pars Distalis | Angiectasis                 | Moderate         |
| * Stomach, Forestomach<br>[ Hemorrhage TGLS = 6-12 ]      |               | Hemorrhage                  | Moderate         |
| Tongue<br>[ Schwannoma Malignant TGLS = 8-13 ]            |               | Schwannoma Malignant        |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 353

TRT#: 8

SEX: Female

DAY ON TEST: 448

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-353

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                          |                           |                            |
|--------------------------|--------------------------|---------------------------|----------------------------|
| * Blood Vessel           | * Bone                   | * Clitoral Gland          | * Esophagus                |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Larynx                 | * Mammary Gland           | * Parathyroid Gland        |
| * Skin                   | * Stomach, Glandular     | * Trachea                 |                            |

AUTO PRECLUDES DIAG.

- |                             |                          |
|-----------------------------|--------------------------|
| * Intestine Small, Duodenum | * Intestine Small, Ileum |
|-----------------------------|--------------------------|

OBSERVATIONS

- |   |                      |         |
|---|----------------------|---------|
| * Adrenal Cortex                        | Leukemia Mononuclear |         |
| * Adrenal Medulla                       | Leukemia Mononuclear |         |
| * Bone Marrow                           | Leukemia Mononuclear |         |
| * Brain                                 | Leukemia Mononuclear |         |
| * Heart                                 | Leukemia Mononuclear |         |
| * Kidney                                | Leukemia Mononuclear |         |
|   | Nephropathy          | Minimal |
| * Liver                                 | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 2,3,4-5 ] |                      |         |
| * Lung                                  | Leukemia Mononuclear |         |
| * Lymph Node, Bronchial                 | Leukemia Mononuclear |         |
| * Lymph Node, Mandibular                | Leukemia Mononuclear |         |
| * Lymph Node, Mediastinal               | Leukemia Mononuclear |         |
| * Lymph Node, Mesenteric                | Leukemia Mononuclear |         |
| * Nose                                  | Leukemia Mononuclear |         |
| * Ovary                                 | Leukemia Mononuclear |         |
| * Pancreas                              | Leukemia Mononuclear |         |
| * Pituitary Gland                       | Leukemia Mononuclear |         |
| * Salivary Glands                       | Leukemia Mononuclear |         |
| * Spleen                                | Leukemia Mononuclear |         |
| [ Leukemia Mononuclear TGLS = 1-5 ]     |                      |         |
| * Stomach, Forestomach                  | Leukemia Mononuclear |         |
| * Thymus                                | Leukemia Mononuclear |         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 353

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 448

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-353

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

Leukemia Mononuclear

\* Urinary Bladder

Leukemia Mononuclear

\* Uterus

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 354

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-354

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     | * Ovary                   |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

OBSERVATIONS

|                                 |               |                           |         |
|---------------------------------|---------------|---------------------------|---------|
| * Kidney                        |               | Nephropathy               | Mild    |
| [ Nephropathy TGLS = 3-7 ]      |               |                           |         |
| * Liver                         |               | Basophilic Focus          | Minimal |
|                                 |               | Clear Cell Focus          | Minimal |
|                                 |               | Vacuolization Cytoplasmic | Minimal |
| [ Basophilic Focus TGLS = 4-5 ] |               |                           |         |
| [ Clear Cell Focus TGLS = 4-5 ] |               |                           |         |
| * Lymph Node, Mediastinal       |               | Hemorrhage                | Minimal |
|                                 |               | Pigmentation              | Mild    |
| * Pancreas                      | Acinus        | Atrophy                   | Minimal |
| * Pituitary Gland               | Pars Distalis | Adenoma                   |         |
|                                 | Pars Distalis | Hyperplasia               | Mild    |
| [ Adenoma TGLS = 2-1 ]          |               |                           |         |
| * Uterus                        |               | Hydrometra                | Marked  |
|                                 |               | Inflammation              | Mild    |
| [ Hydrometra TGLS = 1-9 ]       |               |                           |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 355

TRT#: 8

SEX: Female

DAY ON TEST: 736

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-355

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      |
| * Ovary                  | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

OBSERVATIONS

|                              |               |                  |                  |
|------------------------------|---------------|------------------|------------------|
| * Adrenal Cortex             |               | Degeneration     | Mild             |
| * Kidney                     |               | Nephropathy      | Mild             |
| * Liver                      |               | Basophilic Focus | Minimal          |
| * Lung                       |               | Inflammation     | Chronic, Minimal |
| * Lymph Node, Mediastinal    |               | Hemorrhage       | Mild             |
|                              |               | Pigmentation     | Mild             |
| * Mammary Gland              |               | Fibroadenoma     |                  |
|                              |               | Galactocele      | Mild             |
| [ Fibroadenoma TGLS = 1-12 ] |               |                  |                  |
| * Pancreas                   | Acinus        | Atrophy          | Minimal          |
| * Pituitary Gland            | Pars Distalis | Adenoma          |                  |
| [ Adenoma TGLS = 2-1 ]       |               |                  |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 356

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 462

HISTO: 90-5201-356

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                            |                          |                           |
|-----------------------------|----------------------------|--------------------------|---------------------------|
| * Blood Vessel              | * Bone                     | * Bone Marrow            | * Clitoral Gland          |
| * Esophagus                 | * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Jejunum | * Islets, Pancreatic     | * Larynx                  |
| * Lymph Node, Bronchial     | * Mammary Gland            | * Pancreas               | * Parathyroid Gland       |
| * Salivary Glands           | * Skin                     | * Stomach, Forestomach   | * Stomach, Glandular      |
| * Thyroid Gland             | * Trachea                  | * Urinary Bladder        | * Uterus                  |

AUTO PRECLUDES DIAG.

\* Intestine Small, Ileum

OBSERVATIONS

|                           |                                     |                      |         |
|---------------------------|-------------------------------------|----------------------|---------|
| * Adrenal Cortex          |                                     | Leukemia Mononuclear |         |
| * Adrenal Medulla         |                                     | Leukemia Mononuclear |         |
| * Brain                   |                                     | Leukemia Mononuclear |         |
| * Heart                   |                                     | Leukemia Mononuclear |         |
| * Kidney                  |                                     | Leukemia Mononuclear |         |
|                           |                                     | Nephropathy          | Minimal |
| * Liver                   |                                     | Leukemia Mononuclear |         |
| * Lung                    |                                     | Leukemia Mononuclear |         |
| * Lymph Node, Mandibular  |                                     | Leukemia Mononuclear |         |
| * Lymph Node, Mediastinal |                                     | Pigmentation         | Mild    |
| * Lymph Node, Mesenteric  |                                     | Leukemia Mononuclear |         |
| * Nose                    | Globlet Cell                        | Hyperplasia          | Mild    |
| * Ovary                   |                                     | Leukemia Mononuclear |         |
| * Pituitary Gland         | Pars Distalis                       | Hyperplasia          | Mild    |
|                           |                                     | Leukemia Mononuclear |         |
| * Spleen                  |                                     | Leukemia Mononuclear |         |
|                           | [ Leukemia Mononuclear TGLS = 1-5 ] |                      |         |
| * Thymus                  |                                     | Leukemia Mononuclear |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 357

TRT#: 8

SEX: Female

DAY ON TEST: 735

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-357

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     | * Ovary                   |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

OBSERVATIONS

|   |               |                  |         |
|---|---------------|------------------|---------|
| * Kidney<br>[ Nephropathy TGLS = 1-7 ]      |               | Nephropathy      | Mild    |
| * Liver                                     |               | Basophilic Focus | Minimal |
| * Lymph Node, Mediastinal                   |               | Pigmentation     | Mild    |
| * Pancreas                                  | Acinus        | Atrophy          | Minimal |
| * Pituitary Gland<br>[ Adenoma TGLS = 2-1 ] | Pars Distalis | Adenoma          |         |
| * Thymus                                    |               | Cyst             | Mild    |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 358

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 604

HISTO: 90-5201-358

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                    |
| * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lymph Node, Mandibular    | * Mammary Gland          | * Nose                     |
| * Ovary                   | * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          |
| * Skin                    | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |

MISSING

|          |                         |
|----------|-------------------------|
| * Larynx | * Lymph Node, Bronchial |
|----------|-------------------------|

OBSERVATIONS

|                           |               |                           |                                       |
|---------------------------|---------------|---------------------------|---------------------------------------|
| * Adrenal Cortex          |               | Hemorrhage                | Mild                                  |
|                           |               | Pigmentation              | Minimal                               |
|                           |               | Vacuolization Cytoplasmic | Mild                                  |
| * Bone Marrow             |               | Leukemia Mononuclear      |                                       |
| * Heart                   | Atrium        | Thrombosis                | Mild                                  |
| * Kidney                  |               | Cyst                      | Mild                                  |
|                           |               | Nephropathy               | Minimal                               |
|                           |               |                           | [ Cyst TGLS = 5-7 ]                   |
| * Liver                   |               | Leukemia Mononuclear      |                                       |
|                           |               |                           | [ Leukemia Mononuclear TGLS = 4-5 ]   |
| * Lung                    |               | Leukemia Mononuclear      |                                       |
| Lymph Node                | Pancreatic    | Hemorrhage                | Mild                                  |
|                           | Pancreatic    | Infiltration Cellular     | Histiocyte, Moderate                  |
|                           |               |                           | [ Hemorrhage TGLS = 8-12 ]            |
|                           |               |                           | [ Infiltration Cellular TGLS = 8-12 ] |
| * Lymph Node, Mediastinal |               | Hemorrhage                | Mild                                  |
|                           |               |                           | [ Hemorrhage TGLS = 6-2 ]             |
| * Lymph Node, Mesenteric  |               | Hemorrhage                | Mild                                  |
| * Pituitary Gland         | Pars Distalis | Cyst                      | Mild                                  |
|                           |               |                           | [ Cyst TGLS = 7-14 ]                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 358

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 604

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-358

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen

Leukemia Mononuclear

Necrosis

Moderate

[ Leukemia Mononuclear TGLS = 1,2-5 ]

[ Necrosis TGLS = 1,2-5 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 359

TRT#: 8

SEX: Female

DAY ON TEST: 736

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-359

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Bone Marrow              |
| * Brain                   | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Bronchial    |
| * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   | * Nose                   | * Ovary                    |
| * Parathyroid Gland       | * Salivary Glands           | * Skin                   | * Spleen                   |
| * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            |
| * Trachea                 | * Urinary Bladder           | * Uterus                 |                            |

MISSING

\* Clitoral Gland

OBSERVATIONS

|                          |  |                           |                  |
|--------------------------|--|---------------------------|------------------|
| * Adrenal Cortex         |  | Degeneration              | Cystic, Moderate |
|                          |  | Vacuolization Cytoplasmic | Moderate         |
| * Heart                  |  | Cardiomyopathy            | Minimal          |
| * Kidney                 |  | Nephropathy               | Moderate         |
|                          | [ Nephropathy TGLS = 4-7 ]               |                           |                  |
| * Liver                  |  | Basophilic Focus          | Minimal          |
|                          |  | Vacuolization Cytoplasmic | Minimal          |
|                          | [ Vacuolization Cytoplasmic TGLS = 5-5 ] |                           |                  |
| * Lymph Node, Mesenteric |  | Hemorrhage                | Minimal          |
| * Mammary Gland          |  | Fibroadenoma              | Multiple         |
|                          | [ Fibroadenoma TGLS = 2-12;3-13;1-8 ]    |                           |                  |
| * Pancreas               | Acinus                                   | Atrophy                   | Mild             |
| * Pituitary Gland        | Pars Distalis                            | Adenoma                   |                  |
|                          | [ Adenoma TGLS = 6-1 ]                   |                           |                  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 360

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-360

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mediastinal   |
| * Lymph Node, Mesenteric | * Nose                     | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

\* Thymus

OBSERVATIONS

|   |               |                            |          |
|---|---------------|----------------------------|----------|
| * Heart                                   |               | Cardiomyopathy             | Minimal  |
| * Kidney                                  |               | Nephropathy                | Moderate |
| [ Nephropathy TGLS = 6-7 ]                |               |                            |          |
| * Liver                                   |               | Basophilic Focus           | Minimal  |
|   |               | Clear Cell Focus           | Minimal  |
|   |               | Hepatodiaphragmatic Nodule | Mild     |
| [ Hepatodiaphragmatic Nodule TGLS = 4-5 ] |               |                            |          |
| * Mammary Gland                           |               | Fibroadenoma               | Multiple |
|   |               | Hyperplasia                | Mild     |
| [ Fibroadenoma TGLS = 1-12; 2-13 ]        |               |                            |          |
| Mesentery                                 | Fat           | Necrosis                   | Mild     |
| [ Necrosis TGLS = 3-14 ]                  |               |                            |          |
| * Pituitary Gland                         | Pars Distalis | Hyperplasia                | Moderate |
| [ Hyperplasia TGLS = 5-1 ]                |               |                            |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 361

TRT#: 8

SEX: Female

DAY ON TEST: 735

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-361

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Ovary                     |
| * Pancreas               | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

OBSERVATIONS

|                           |                                   |                    |          |
|---------------------------|-----------------------------------|--------------------|----------|
| * Bone Marrow             |                                   | Hyperplasia        | Mild     |
| * Kidney                  |                                   | Nephropathy        | Minimal  |
|                           |                                   | Pigmentation       | Minimal  |
| * Liver                   |                                   | Basophilic Focus   | Mild     |
|                           |                                   | Eosinophilic Focus | Moderate |
|                           | [ Eosinophilic Focus TGLS = 4-5 ] |                    |          |
| * Lymph Node, Mediastinal |                                   | Hemorrhage         | Mild     |
|                           |                                   | Pigmentation       | Mild     |
| * Lymph Node, Mesenteric  |                                   | Hemorrhage         | Moderate |
|                           | [ Hemorrhage TGLS = 5-8 ]         |                    |          |
| * Mammary Gland           |                                   | Fibroadenoma       |          |
|                           |                                   | Hyperplasia        | Moderate |
|                           | [ Fibroadenoma TGLS = 1-12 ]      |                    |          |
| * Nose                    | Glands                            | Hyperplasia        | Moderate |
| * Pituitary Gland         | Pars Distalis                     | Adenoma            |          |
|                           | [ Adenoma TGLS = 2-1 ]            |                    |          |
| * Thyroid Gland           | C Cell                            | Adenoma            |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 362

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-362

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lymph Node, Mesenteric    | * Nose                   | * Parathyroid Gland        | * Salivary Glands         |
| * Skin                      | * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |
| * Uterus                    |                          |                            |                           |

OBSERVATIONS

|                           |  |  |                     |
|---------------------------|--|--|---------------------|
| * Kidney                  | Renal Tubule                               | Hyperplasia<br>Nephropathy                       | Minimal<br>Marked   |
|                           | [ Nephropathy TGLS = 4-7 ]                 |  |                     |
| * Larynx                  | Respirat Epith                             | Hyperplasia<br>Inflammation                      | Mild<br>Mild        |
| * Liver                   |  | Eosinophilic Focus<br>Hepatodiaphragmatic Nodule | Mild<br>Moderate    |
|                           | [ Eosinophilic Focus TGLS = 5-5 ]          |  |                     |
|                           | [ Hepatodiaphragmatic Nodule TGLS = 6-13 ] |  |                     |
| * Lung                    |  | Infiltration Cellular                            | Histiocyte, Minimal |
| * Lymph Node, Bronchial   |  | Pigmentation                                     | Minimal             |
| * Lymph Node, Mandibular  |  | Pigmentation                                     | Minimal             |
| * Lymph Node, Mediastinal |  | Hemorrhage                                       | Mild                |
| * Mammary Gland           |  | Fibroadenoma                                     | Multiple            |
|                           | [ Fibroadenoma TGLS = 1,2-14 ]             |  |                     |
| Oral Mucosa               | Pharyngeal                                 | Squamous Cell Papilloma                          |                     |
|                           | [ Squamous Cell Papilloma TGLS = 9-12 ]    |  |                     |
| * Ovary                   |  | Cyst   | Mild                |
|                           | [ Cyst TGLS = 3-9 ]                        |  |                     |
| * Pancreas                | Acinus                                     | Atrophy  | Minimal             |
| * Pituitary Gland         | Pars Distalis                              | Adenoma  |                     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 362

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-362

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 7-1 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 363

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 711

HISTO: 90-5201-363

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Clitoral Gland          | * Esophagus                 |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           | * Nose                      |
| * Ovary                  | * Salivary Glands          | * Skin                    | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

MISSING

|          |                         |                     |
|----------|-------------------------|---------------------|
| * Larynx | * Lymph Node, Bronchial | * Parathyroid Gland |
|----------|-------------------------|---------------------|

OBSERVATIONS

|  |               |                |         |
|--|---------------|----------------|---------|
| * Heart  |               | Cardiomyopathy | Minimal |
| * Kidney   |               | Nephropathy    | Marked  |
| [ Nephropathy TGLS = 2-7 ]   |               |                |         |
| * Larynx   |               |                |         |
| Note: Larynx is present, but the correct area for histopathologic evaluation was not obtained. |               |                |         |
| * Liver  |               | Necrosis       | Marked  |
| * Lymph Node, Mediastinal  |               | Pigmentation   | Minimal |
| * Pancreas   | Arteriole     | Inflammation   | Mild    |
| * Pituitary Gland  | Pars Distalis | Adenoma        |         |
| [ Adenoma TGLS = 3-1 ]   |               |                |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 364

TRT#: 8

SEX: Female

DAY ON TEST: 736

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-364

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Nose                      |
| * Ovary                  | * Pancreas                 | * Salivary Glands         | * Skin                      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        |                            |                           |                             |

MISSING

\* Larynx

OBSERVATIONS

|                              |               |                           |          |
|------------------------------|---------------|---------------------------|----------|
| * Bone Marrow                |               | Hyperplasia               | Mild     |
| * Kidney                     |               | Nephropathy               | Moderate |
| [ Nephropathy TGLS = 3-7 ]   |               |                           |          |
| * Liver                      |               | Angiectasis               | Mild     |
|                              |               | Leukemia Mononuclear      |          |
|                              |               | Vacuolization Cytoplasmic | Mild     |
| * Lymph Node, Mediastinal    |               | Pigmentation              | Mild     |
| * Mammary Gland              |               | Fibroadenoma              |          |
|                              |               | Hyperplasia               | Mild     |
| [ Fibroadenoma TGLS = 1-12 ] |               |                           |          |
| * Parathyroid Gland          |               | Hyperplasia               | Mild     |
| * Pituitary Gland            | Pars Distalis | Adenoma                   |          |
| [ Adenoma TGLS = 2-1 ]       |               |                           |          |
| * Spleen                     |               | Leukemia Mononuclear      |          |
| * Stomach, Forestomach       |               | Hyperplasia               | Mild     |
| * Uterus                     |               | Polyp Stromal             |          |
| [ Polyp Stromal TGLS = 4-9 ] |               |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 365

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-365

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Trachea                   | * Urinary Bladder        |                            |                           |

OBSERVATIONS

|                           |                              |                           |                     |
|---------------------------|------------------------------|---------------------------|---------------------|
| * Kidney                  |                              | Nephropathy               | Mild                |
| * Liver                   |                              | Basophilic Focus          | Minimal             |
|                           |                              | Vacuolization Cytoplasmic | Minimal             |
| * Lung                    |                              | Inflammation              | Chronic, Minimal    |
| * Lymph Node, Mediastinal |                              | Pigmentation              | Minimal             |
| * Mammary Gland           |                              | Fibroadenoma              |                     |
|                           |                              | Galactocele               | Mild                |
|                           | [ Fibroadenoma TGLS = 1-12 ] |                           |                     |
| * Nose                    |                              | Infiltration Cellular     | Lymphocyte, Minimal |
| * Ovary                   |                              | Cyst                      | Mild                |
| * Pituitary Gland         | Pars Distalis                | Cyst                      | Mild                |
|                           | Pars Distalis                | Hyperplasia               | Mild                |
| * Thyroid Gland           | C Cell                       | Hyperplasia               | Moderate            |
| * Uterus                  |                              | Hydrometra                | Mild                |
|                           | [ Hydrometra TGLS = 4-9 ]    |                           |                     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 366

TRT#: 8

SEX: Female

DAY ON TEST: 736

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-366

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mesenteric   | * Nose                    |
| * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Spleen                    | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Thyroid Gland             | * Trachea                | * Urinary Bladder          | * Uterus                  |

OBSERVATIONS

|                           |  |                           |                   |
|---------------------------|--|---------------------------|-------------------|
| * Kidney                  | Renal Tubule                             | Adenoma                   |                   |
|                           |  | Nephropathy               | Marked            |
|                           | [ Nephropathy TGLS = 4-7 ]               |                           |                   |
| * Liver                   |  | Basophilic Focus          | Minimal           |
|                           |  | Vacuolization Cytoplasmic | Minimal           |
|                           | [ Vacuolization Cytoplasmic TGLS = 6-5 ] |                           |                   |
| Lymph Node                | Renal                                    | Hemorrhage                | Moderate          |
|                           | [ Hemorrhage TGLS = 5-13 ]               |                           |                   |
| * Lymph Node, Bronchial   |  | Pigmentation              | Mild              |
| * Lymph Node, Mandibular  |  | Hyperplasia               | Plasma Cell, Mild |
| * Lymph Node, Mediastinal |  | Hemorrhage                | Mild              |
|                           |  | Pigmentation              | Mild              |
| * Mammary Gland           |  | Hyperplasia               | Minimal           |
| Mesentery                 | Fat                                      | Necrosis                  | Mild              |
|                           | [ Necrosis TGLS = 1-12 ]                 |                           |                   |
| * Ovary                   |  | Cyst                      | Mild              |
|                           | [ Cyst TGLS = 2-9 ]                      |                           |                   |
| * Pituitary Gland         | Pars Distalis                            | Adenoma                   |                   |
|                           | [ Adenoma TGLS = 7-1 ]                   |                           |                   |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 367

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 709

HISTO: 90-5201-367

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Bronchial     | * Lymph Node, Mandibular |
| * Lymph Node, Mediastinal  | * Nose                    | * Ovary                     | * Pancreas               |
| * Parathyroid Gland        | * Salivary Glands         | * Spleen                    | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

MISSING

\* Clitoral Gland

OBSERVATIONS

|                                   |                |                  |                |
|-----------------------------------|----------------|------------------|----------------|
| * Bone Marrow                     |                | Hyperplasia      | Mild           |
| * Kidney                          |                | Nephropathy      | Minimal        |
| * Larynx                          | Respirat Epith | Metaplasia       | Squamous, Mild |
| * Liver                           |                | Basophilic Focus | Minimal        |
| * Lung                            | Alveolar Epith | Hyperplasia      | Moderate       |
| [ Hyperplasia TGLS = 7-12 ]       |                |                  |                |
| * Lymph Node, Mesenteric          |                | Hemorrhage       | Moderate       |
| [ Hemorrhage TGLS = 9-8 ]         |                |                  |                |
| * Mammary Gland                   |                | Fibroadenoma     | Multiple       |
| [ Fibroadenoma TGLS = 1-15;2-16 ] |                | Hyperplasia      | Mild           |
| Mesentery                         | Fat            | Necrosis         | Mild           |
| [ Necrosis TGLS = 8-13 ]          |                |                  |                |
| * Pituitary Gland                 | Pars Distalis  | Hyperplasia      | Moderate       |
| [ Hyperplasia TGLS = 6-1 ]        |                |                  |                |
| * Skin                            |                | Ulcer            | Mild           |
| [ Ulcer TGLS = 5-14 ]             |                |                  |                |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 368

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-368

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

OBSERVATIONS

|                              |               |              |                |
|------------------------------|---------------|--------------|----------------|
| * Clitoral Gland             |               | Hyperplasia  | Mild           |
| * Kidney                     |               | Nephropathy  | Minimal        |
| * Liver                      |               | Angiectasis  | Minimal        |
|                              |               | Inflammation | Acute, Minimal |
| * Lymph Node, Mediastinal    |               | Hemorrhage   | Moderate       |
| * Mammary Gland              |               | Adenoma      |                |
|                              |               | Fibroadenoma |                |
|                              |               | Hyperplasia  | Mild           |
| [ Adenoma TGLS = 1-8 ]       |               |              |                |
| [ Fibroadenoma TGLS = 2-12 ] |               |              |                |
| * Pituitary Gland            | Pars Distalis | Adenoma      |                |
| [ Adenoma TGLS = 3-1 ]       |               |              |                |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 369

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 734

HISTO: 90-5201-369

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Nose                      | * Ovary                  | * Pancreas                 | * Parathyroid Gland       |
| * Salivary Glands           | * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Trachea                | * Urinary Bladder          | * Uterus                  |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                             |               |                  |         |
|-----------------------------|---------------|------------------|---------|
| * Kidney                    |               | Nephropathy      | Mild    |
| * Liver                     |               | Basophilic Focus | Minimal |
| * Lymph Node, Mediastinal   |               | Pigmentation     | Minimal |
| * Mammary Gland             |               | Galactoceles     | Mild    |
|                             |               | Hyperplasia      | Mild    |
| * Pituitary Gland           | Pars Distalis | Adenoma          |         |
| [ Adenoma TGLS = 3-1 ]      |               |                  |         |
| * Skin                      | Epidermis     | Hyperplasia      | Mild    |
|                             |               | Ulcer            | Mild    |
| [ Hyperplasia TGLS = 4-12 ] |               |                  |         |
| [ Ulcer TGLS = 4-12 ]       |               |                  |         |
| * Thyroid Gland             | C Cell        | Hyperplasia      | Mild    |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 370

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-370

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | * Blood Vessel           | * Bone                     | * Brain                   |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lymph Node, Bronchial     | * Lymph Node, Mandibular | * Nose                     | * Pancreas                |
| * Salivary Glands           | * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Thymus                    | * Trachea                | * Urinary Bladder          |                           |

**OBSERVATIONS**

|                                      |                |                           |                |
|--------------------------------------|----------------|---------------------------|----------------|
| * Adrenal Cortex                     |                | Vacuolization Cytoplasmic | Moderate       |
| * Bone Marrow                        |                | Leukemia Mononuclear      |                |
| * Clitoral Gland                     |                | Inflammation              | Minimal        |
| * Heart                              |                | Fibrosis                  | Moderate       |
| [ Fibrosis TGLS = 9-4 ]              |                |                           |                |
| * Kidney                             | Transit Epithe | Hyperplasia               | Minimal        |
|                                      |                | Leukemia Mononuclear      |                |
|                                      |                | Nephropathy               | Moderate       |
| [ Nephropathy TGLS = 6-7 ]           |                |                           |                |
| * Larynx                             |                | Leukemia Mononuclear      |                |
|                                      | Respirat Epith | Metaplasia                | Squamous, Mild |
| * Liver                              |                | Angiectasis               | Moderate       |
|                                      |                | Leukemia Mononuclear      |                |
| [ Angiectasis TGLS = 4-5 ]           |                |                           |                |
| [ Leukemia Mononuclear TGLS = 5-5 ]  |                |                           |                |
| * Lung                               |                | Leukemia Mononuclear      |                |
| Lymph Node                           | Renal          | Leukemia Mononuclear      |                |
| [ Leukemia Mononuclear TGLS = 7-12 ] |                |                           |                |
| * Lymph Node, Mediastinal            |                | Leukemia Mononuclear      |                |
| * Lymph Node, Mesenteric             |                | Leukemia Mononuclear      |                |
| * Mammary Gland                      |                | Galactocele               | Minimal        |
| * Ovary                              |                | Cyst                      | Mild           |
| [ Cyst TGLS = 1-9 ]                  |                |                           |                |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:35

**First Dose M/F:** NA / NA

**Lab:** IIT

**ANIMAL ID:** 370

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-370

**ORGAN AND ACCOUNTABLE SITE STATUS**

|   |               |                      |          |
|---|---------------|----------------------|----------|
| * Parathyroid Gland<br>[ Hyperplasia TGLS = 8-3 ] |               | Hyperplasia          | Minimal  |
| * Pituitary Gland<br>[ Hyperplasia TGLS = 10-1 ]  | Pars Distalis | Hyperplasia          | Mild     |
| * Spleen<br>[ Leukemia Mononuclear TGLS = 3-5 ]   |               | Leukemia Mononuclear |          |
| * Thyroid Gland                                   | C Cell        | Hyperplasia          | Minimal  |
| * Uterus<br>[ Hydrometra TGLS = 2-9 ]             |               | Hydrometra           | Moderate |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 371

**TRT#:** 8

**DOSE:** 750 PPM

**SEX:** Female

**DISP:** Missing

**DAY ON TEST:** 527

**HISTO:** 90-5201-371

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**\*\*\* NECROPSIED - NO MICROSCOPIC EXAMINATION**

PRIMARY CAUSE OF DEATH

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 372

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-372

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Clitoral Gland          |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Nose                    |
| * Ovary                     | * Pancreas               | * Parathyroid Gland        | * Salivary Glands         |
| * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  |
| * Trachea                   | * Urinary Bladder        |                            |                           |

**OBSERVATIONS**

|                           |                                      |   |                  |
|---------------------------|--------------------------------------|---|------------------|
| * Adrenal Cortex          |                                      | Leukemia Mononuclear<br>Vacuolization Cytoplasmic | Minimal          |
| * Adrenal Medulla         |                                      | Leukemia Mononuclear                              |                  |
| * Bone Marrow             |                                      | Hyperplasia                                       | Moderate         |
| * Heart                   |                                      | Leukemia Mononuclear                              |                  |
| * Kidney                  |                                      | Leukemia Mononuclear<br>Nephropathy               | Mild             |
|                           | [ Leukemia Mononuclear TGLS = 11-7 ] |   |                  |
|                           | [ Nephropathy TGLS = 11-7 ]          |   |                  |
| * Liver                   |                                      | Leukemia Mononuclear                              |                  |
|                           | [ Leukemia Mononuclear TGLS = 6-5 ]  |   |                  |
| * Lung                    |                                      | Leukemia Mononuclear                              |                  |
| * Lymph Node, Mediastinal |                                      | Leukemia Mononuclear                              |                  |
| * Lymph Node, Mesenteric  |                                      | Leukemia Mononuclear                              |                  |
| * Mammary Gland           |                                      | Carcinoma<br>Hyperplasia                          | Multiple<br>Mild |
|                           | [ Carcinoma TGLS = 1,2-13 ]          |   |                  |
| Mesentery                 | Fat                                  | Necrosis  | Moderate         |
|                           | [ Necrosis TGLS = 8-14;9-15 ]        |   |                  |
| * Pituitary Gland         | Pars Distalis                        | Adenoma   |                  |
|                           | Pars Distalis                        | Leukemia Mononuclear                              |                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:35

**First Dose M/F:** NA / NA

**Lab:** IIT

---

**ANIMAL ID:** 372

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-372

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 10-1 ]

[ Leukemia Mononuclear TGLS = 10-1 ]

\* Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-5;5-12 ]

\* Thyroid Gland

C Cell

Hyperplasia

Mild

\* Uterus

Polyp Stromal

[ Polyp Stromal TGLS = 7-9 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 373

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 667

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-373

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Bronchial  | * Lymph Node, Mesenteric   | * Nose                    | * Ovary                     |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

**OBSERVATIONS**

|                            |               |                                  |          |
|----------------------------|---------------|----------------------------------|----------|
| * Bone Marrow              |               | Hyperplasia                      | Moderate |
| Harderian Gland            |               | Inflammation                     | Minimal  |
| * Kidney                   |               | Nephropathy                      | Moderate |
| [ Nephropathy TGLS = 5-7 ] |               |                                  |          |
| * Larynx                   |               | Inflammation                     | Minimal  |
| * Liver                    |               | Basophilic Focus                 | Minimal  |
|                            |               | Vacuolization Cytoplasmic        | Mild     |
| * Lymph Node, Mandibular   |               | Hemorrhage                       | Minimal  |
| * Lymph Node, Mediastinal  |               | Pigmentation                     | Mild     |
| * Mammary Gland            |               | Galactocele                      | Moderate |
| Mesentery                  | Fat           | Necrosis                         | Moderate |
| [ Necrosis TGLS = 4-8 ]    |               |                                  |          |
| * Pancreas                 | Acinus        | Atrophy                          | Minimal  |
| * Pituitary Gland          | Pars Distalis | Adenoma                          |          |
| [ Adenoma TGLS = 2-1 ]     |               |                                  |          |
| * Spleen                   |               | Hematopoietic Cell Proliferation | Moderate |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 374

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-374

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

OBSERVATIONS

|                              |               |                  |          |
|------------------------------|---------------|------------------|----------|
| * Clitoral Gland             |               | Inflammation     | Moderate |
| * Kidney                     |               | Nephropathy      | Mild     |
| [ Nephropathy TGLS = 4-7 ]   |               |                  |          |
| * Liver                      |               | Basophilic Focus | Minimal  |
| * Lymph Node, Mediastinal    |               | Hemorrhage       | Mild     |
|                              |               | Pigmentation     | Mild     |
| * Mammary Gland              |               | Fibroadenoma     |          |
| [ Fibroadenoma TGLS = 3-12 ] |               | Hyperplasia      | Minimal  |
| [ Hyperplasia TGLS = 1-8 ]   |               |                  |          |
| * Pituitary Gland            | Pars Distalis | Adenoma          |          |
|                              | Pars Distalis | Hyperplasia      | Moderate |
| [ Adenoma TGLS = 2-1 ]       |               |                  |          |
| [ Hyperplasia TGLS = 2-1 ]   |               |                  |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 375

TRT#: 8

SEX: Female

DAY ON TEST: 722

DOSE: 750 PPM

DISP: Moribund Sacrifice

HISTO: 90-5201-375

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Nose                   | * Ovary                    | * Pancreas                | * Parathyroid Gland         |
| * Salivary Glands        | * Skin                     | * Spleen                  | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

OBSERVATIONS

|                           |                              |                           |          |
|---------------------------|------------------------------|---------------------------|----------|
| * Adrenal Cortex          |                              | Vacuolization Cytoplasmic | Minimal  |
| * Kidney                  | Renal Tubule                 | Hyperplasia               | Minimal  |
|                           |                              | Nephropathy               | Marked   |
|                           | [ Nephropathy TGLS = 2-7 ]   |                           |          |
| * Liver                   |                              | Basophilic Focus          | Minimal  |
|                           |                              | Vacuolization Cytoplasmic | Minimal  |
| * Lymph Node, Mediastinal |                              | Pigmentation              | Minimal  |
| * Mammary Gland           |                              | Fibroadenoma              |          |
|                           |                              | Galactocele               | Mild     |
|                           |                              | Hyperplasia               | Moderate |
|                           | [ Fibroadenoma TGLS = 1-12 ] |                           |          |
| * Pituitary Gland         | Pars Distalis                | Angiectasis               | Mild     |
|                           | Pars Distalis                | Hyperplasia               | Minimal  |
|                           | [ Angiectasis TGLS = 3,4-1 ] |                           |          |
| * Stomach, Forestomach    |                              | Hyperplasia               | Moderate |
|                           |                              | Inflammation              | Minimal  |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 376

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-376

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Blood Vessel            | * Bone                      | * Bone Marrow            |
| * Brain                    | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Bronchial  |
| * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Nose                     | * Ovary                   | * Salivary Glands           | * Skin                   |
| * Spleen                   | * Thymus                  | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

OBSERVATIONS

|                                       |                |                       |                  |
|---------------------------------------|----------------|-----------------------|------------------|
| * Adrenal Medulla                     |                | Hyperplasia           | Mild             |
| * Clitoral Gland                      |                | Cyst                  | Marked           |
|                                       |                | Inflammation          | Mild             |
| [ Cyst TGLS = 1-9 ]                   |                |                       |                  |
| * Kidney                              | Transit Epithe | Hyperplasia           | Minimal          |
|                                       |                | Nephropathy           | Marked           |
| [ Nephropathy TGLS = 4-7 ]            |                |                       |                  |
| * Liver                               |                | Angiectasis           | Mild             |
| [ Angiectasis TGLS = 2,3-5 ]          |                |                       |                  |
| * Lung                                | Alveolar Epith | Hyperplasia           | Mild             |
|                                       |                | Infiltration Cellular | Histiocyte, Mild |
| [ Hyperplasia TGLS = 9-12 ]           |                |                       |                  |
| [ Infiltration Cellular TGLS = 9-12 ] |                |                       |                  |
| Lymph Node                            | Renal          | Hemorrhage            | Mild             |
|                                       | Renal          | Pigmentation          | Minimal          |
| [ Hemorrhage TGLS = 6-13 ]            |                |                       |                  |
| [ Pigmentation TGLS = 6-13 ]          |                |                       |                  |
| * Pancreas                            | Acinus         | Atrophy               | Mild             |
| * Parathyroid Gland                   |                | Hyperplasia           | Mild             |
| [ Hyperplasia TGLS = 5-3 ]            |                |                       |                  |
| * Pituitary Gland                     | Pars Distalis  | Adenoma               | Multiple         |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 376 | <b>TRT#:</b> 8       | <b>SEX:</b> Female              | <b>DAY ON TEST:</b> 735   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-376 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 7-1 ]

\* Stomach, Forestomach

Hyperplasia

Moderate

Inflammation

Mild

\* Stomach, Glandular

Inflammation

Minimal

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 377

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 646

**DOSE:** 750 PPM

**DISP:** Natural Death

**HISTO:** 90-5201-377

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                             |                          |                          |                           |
|-----------------------------|--------------------------|--------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel           | * Bone                    |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Islets, Pancreatic     | * Larynx                 | * Lymph Node, Mesenteric  |
| * Mammary Gland             | * Nose                   | * Ovary                  | * Pancreas                |
| * Parathyroid Gland         | * Stomach, Forestomach   | * Stomach, Glandular     | * Thyroid Gland           |
| * Trachea                   | * Uterus                 |                          |                           |

**MISSING**

\* Lymph Node, Bronchial

**AUTO PRECLUDES DIAG.**

|                          |                            |                   |
|--------------------------|----------------------------|-------------------|
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Urinary Bladder |
|--------------------------|----------------------------|-------------------|

**OBSERVATIONS**

|                                       |                      |
|---------------------------------------|----------------------|
| * Bone Marrow                         | Leukemia Mononuclear |
| * Brain                               | Leukemia Mononuclear |
| [ Leukemia Mononuclear TGLS = 2,4-1 ] |                      |
| * Clitoral Gland                      | Leukemia Mononuclear |
| * Heart                               | Leukemia Mononuclear |
| * Kidney                              | Leukemia Mononuclear |
| * Liver                               | Leukemia Mononuclear |
| * Lung                                | Leukemia Mononuclear |
| * Lymph Node, Mandibular              | Leukemia Mononuclear |
| * Lymph Node, Mediastinal             | Leukemia Mononuclear |
| * Pituitary Gland                     | Leukemia Mononuclear |
| [ Leukemia Mononuclear TGLS = 3-1 ]   |                      |
| * Salivary Glands                     | Leukemia Mononuclear |
| * Skin                                | Leukemia Mononuclear |
| * Spleen                              | Leukemia Mononuclear |
| [ Leukemia Mononuclear TGLS = 1-5 ]   |                      |
| * Thymus                              | Leukemia Mononuclear |

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 378

TRT#: 8

SEX: Female

DAY ON TEST: 690

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-378

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                          |
|---------------------------|-----------------------------|--------------------------|--------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                  |
| * Clitoral Gland          | * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Islets, Pancreatic     |
| * Kidney                  | * Larynx                    | * Lung                   | * Lymph Node, Bronchial  |
| * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                   |
| * Ovary                   | * Parathyroid Gland         | * Salivary Glands        | * Skin                   |
| * Spleen                  | * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                 |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                 |

AUTO PRECLUDES DIAG.

- \* Intestine Small, Jejunum

OBSERVATIONS

- |                          |               |                           |                   |
|--------------------------|---------------|---------------------------|-------------------|
| * Adrenal Cortex         |               | Necrosis                  | Mild              |
| * Bone Marrow            |               | Hemorrhage                | Marked            |
| * Heart                  |               | Cardiomyopathy            | Mild              |
| * Liver                  |               | Vacuolization Cytoplasmic | Minimal           |
| * Lymph Node, Mandibular |               | Hyperplasia               | Plasma Cell, Mild |
| * Pancreas               | Acinus        | Atrophy                   | Mild              |
| * Pituitary Gland        | Pars Distalis | Adenoma                   |                   |

[ Adenoma TGLS = 1-1 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 379

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-379

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Nose                     | * Parathyroid Gland       |
| * Pituitary Gland           | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

OBSERVATIONS

|                           |   |                            |         |
|---------------------------|---|----------------------------|---------|
| * Kidney                  |   | Nephropathy                | Minimal |
| * Liver                   |   | Basophilic Focus           | Minimal |
|                           |   | Clear Cell Focus           | Minimal |
|                           |   | Hepatodiaphragmatic Nodule |         |
|                           | [ Hepatodiaphragmatic Nodule TGLS = 2-5 ] |                            |         |
| * Lymph Node, Mediastinal |   | Hemorrhage                 | Minimal |
|                           |   | Pigmentation               | Minimal |
| * Ovary                   |   | Histiocytic Sarcoma        |         |
| * Pancreas                | Acinus                                    | Atrophy                    | Minimal |
| * Stomach, Forestomach    |   | Hyperplasia                | Minimal |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 380

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-380

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mesenteric    | * Nose                   | * Ovary                    | * Parathyroid Gland       |
| * Salivary Glands           | * Skin                   | * Spleen                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

OBSERVATIONS

|                                |               |                           |         |
|--------------------------------|---------------|---------------------------|---------|
| * Kidney                       |               | Nephropathy               | Mild    |
| * Liver                        |               | Angiectasis               | Minimal |
|                                |               | Basophilic Focus          | Minimal |
|                                |               | Vacuolization Cytoplasmic | Mild    |
| * Lymph Node, Mediastinal      |               | Hemorrhage                | Mild    |
|                                |               | Pigmentation              | Mild    |
| * Mammary Gland                |               | Fibroadenoma              |         |
| [ Fibroadenoma TGLS = 2-9,12 ] |               |                           |         |
| * Pancreas                     | Acinus        | Atrophy                   | Mild    |
| * Pituitary Gland              | Pars Distalis | Adenoma                   |         |
| [ Adenoma TGLS = 1-1 ]         |               |                           |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 381

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-381

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | * Blood Vessel              | * Bone                   |
| * Bone Marrow              | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Mesenteric   | * Nose                    | * Ovary                     | * Parathyroid Gland      |
| * Salivary Glands          | * Skin                    | * Spleen                    | * Stomach, Glandular     |
| * Thymus                   | * Trachea                 | * Urinary Bladder           | * Uterus                 |

OBSERVATIONS

|                           |  |               |                   |
|---------------------------|--|---------------|-------------------|
| * Brain                   |  | Hydrocephalus | Mild              |
| * Clitoral Gland          |  | Hyperplasia   | Mild              |
|                           |  | Inflammation  | Mild              |
|                           | [ Hyperplasia TGLS = 3-9 ]   |               |                   |
|                           | [ Inflammation TGLS = 3-9 ]  |               |                   |
| * Kidney                  |  | Nephropathy   | Moderate          |
|                           | [ Nephropathy TGLS = 4-7 ]   |               |                   |
| * Liver                   |  | Angiectasis   | Moderate          |
|                           | [ Angiectasis TGLS = 5-5 ]   |               |                   |
| * Lymph Node, Bronchial   |  | Pigmentation  | Minimal           |
| * Lymph Node, Mandibular  |  | Hemorrhage    | Mild              |
|                           |  | Hyperplasia   | Plasma Cell, Mild |
| * Lymph Node, Mediastinal |  | Hemorrhage    | Mild              |
|                           |  | Pigmentation  | Mild              |
| * Mammary Gland           |  | Fibroadenoma  |                   |
|                           |  | Hyperplasia   | Moderate          |
|                           | [ Fibroadenoma TGLS = 1-12 ]   |               |                   |
|                           | [ Hyperplasia TGLS = 2-8 ]   |               |                   |
| * Pancreas                | Acinus   | Atrophy       | Minimal           |
| * Pituitary Gland         | Pars Distalis  | Adenoma       |                   |
|                           | Note: The pituitary tumor has expanded into (depressing) the brain. This does not represent metastasis, however. |               |                   |
|                           | [ Adenoma TGLS = 7-1 ]   |               |                   |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                                 |                           |
|-----------------------|----------------------|---------------------------------|---------------------------|
| <b>ANIMAL ID:</b> 381 | <b>TRT#:</b> 8       | <b>SEX:</b> Female              | <b>DAY ON TEST:</b> 735   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Terminal Sacrifice | <b>HISTO:</b> 90-5201-381 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                        |        |              |          |
|------------------------|--------|--------------|----------|
| * Stomach, Forestomach |        | Hyperplasia  | Moderate |
|                        |        | Inflammation | Moderate |
| * Thyroid Gland        | C Cell | Adenoma      |          |
| [ Adenoma TGLS = 6-3 ] |        |              |          |

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 382

TRT#: 8

SEX: Female

DAY ON TEST: 734

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-382

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  | * Mammary Gland             |
| * Nose                   | * Ovary                    | * Parathyroid Gland       | * Salivary Glands           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

MISSING

- \* Lymph Node, Bronchial

OBSERVATIONS

- |                           |               |                  |               |
|---------------------------|---------------|------------------|---------------|
| * Bone Marrow             |               | Hyperplasia      | Mild          |
| * Kidney                  |               | Nephropathy      | Mild          |
| * Liver                   |               | Basophilic Focus | Minimal       |
|                           |               | Inflammation     | Chronic, Mild |
| * Lymph Node, Mediastinal |               | Hemorrhage       | Mild          |
| * Pancreas                | Acinus        | Atrophy          | Minimal       |
| * Pituitary Gland         | Pars Distalis | Hyperplasia      | Minimal       |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 383

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-383

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mesenteric  |
| * Nose                      | * Ovary                  | * Pancreas                 | * Parathyroid Gland       |
| * Salivary Glands           | * Skin                   | * Spleen                   | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

OBSERVATIONS

|                              |               |                  |          |
|------------------------------|---------------|------------------|----------|
| * Kidney                     |               | Nephropathy      | Mild     |
| * Liver                      |               | Basophilic Focus | Minimal  |
| * Lymph Node, Bronchial      |               | Hemorrhage       | Moderate |
| * Lymph Node, Mediastinal    |               | Hemorrhage       | Minimal  |
|                              |               | Pigmentation     | Minimal  |
| * Mammary Gland              |               | Fibroadenoma     |          |
| [ Fibroadenoma TGLS = 1-12 ] |               |                  |          |
| * Pituitary Gland            | Pars Distalis | Hyperplasia      | Moderate |
| [ Hyperplasia TGLS = 2-1 ]   |               |                  |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 384

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-384

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    | * Ovary                     |
| * Pancreas               | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

OBSERVATIONS

|                              |                |                           |          |
|------------------------------|----------------|---------------------------|----------|
| * Adrenal Medulla            |                | Hyperplasia               | Mild     |
| * Kidney                     |                | Nephropathy               | Mild     |
| [ Nephropathy TGLS = 1-7 ]   |                |                           |          |
| * Liver                      |                | Vacuolization Cytoplasmic | Minimal  |
| * Lung                       | Alveolar Epith | Hyperplasia               | Mild     |
| * Lymph Node, Bronchial      |                | Pigmentation              | Minimal  |
| * Lymph Node, Mediastinal    |                | Hemorrhage                | Moderate |
|                              |                | Pigmentation              | Mild     |
| * Mammary Gland              |                | Fibroadenoma              |          |
| [ Fibroadenoma TGLS = 4-13 ] |                |                           |          |
| * Pituitary Gland            | Pars Distalis  | Adenoma                   | Multiple |
| [ Adenoma TGLS = 2-1 ]       |                |                           |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 385

TRT#: 8

SEX: Female

DAY ON TEST: 735

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-385

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Nose                     | * Pancreas                |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Spleen                  |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Thymus                   | * Thyroid Gland           |
| * Trachea                   | * Urinary Bladder        |                            |                           |

OBSERVATIONS

|   |               |                            |         |
|---|---------------|----------------------------|---------|
| * Kidney                                  |               | Nephropathy                | Mild    |
| * Liver                                   |               | Basophilic Focus           | Minimal |
|   |               | Hepatodiaphragmatic Nodule |         |
|   |               | Vacuolization Cytoplasmic  | Minimal |
| [ Hepatodiaphragmatic Nodule TGLS = 3-5 ] |               |                            |         |
| * Mammary Gland                           |               | Galactocele                | Mild    |
| * Ovary                                   |               | Cyst                       | Mild    |
| [ Cyst TGLS = 1-9 ]                       |               |                            |         |
| * Pituitary Gland                         | Pars Distalis | Hyperplasia                | Minimal |
| * Uterus                                  |               | Hydrometra                 | Mild    |
|   |               | Polyp Stromal              |         |
| [ Hydrometra TGLS = 2-9 ]                 |               |                            |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 386

TRT#: 8

SEX: Female

DAY ON TEST: 735

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-386

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Lymph Node, Mesenteric    |
| * Mammary Gland          | * Nose                     | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

**MISSING**

\* Thymus

**OBSERVATIONS**

|                           |                            |                           |         |
|---------------------------|----------------------------|---------------------------|---------|
| * Bone                    | Turbinate                  | Hyperostosis              | Mild    |
|                           |                            | Hyperostosis              | Mild    |
| * Kidney                  |                            | Nephropathy               | Mild    |
|                           | [ Nephropathy TGLS = 1-7 ] |                           |         |
| * Liver                   |                            | Basophilic Focus          | Minimal |
|                           |                            | Vacuolization Cytoplasmic | Minimal |
| * Lymph Node, Mediastinal |                            | Pigmentation              | Minimal |
| * Pituitary Gland         | Pars Distalis              | Adenoma                   |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 387

TRT#: 8

SEX: Female

DAY ON TEST: 734

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-387

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Brain                    | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mandibular   | * Lymph Node, Mediastinal | * Lymph Node, Mesenteric    |
| * Nose                   | * Ovary                    | * Parathyroid Gland       | * Salivary Glands           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

MISSING

- \* Lymph Node, Bronchial

OBSERVATIONS

- |  |               |                  |         |
|--|---------------|------------------|---------|
| * Clitoral Gland<br>[ Hyperplasia TGLS = 1-9 ] |               | Hyperplasia      | Mild    |
| * Kidney                                       |               | Nephropathy      | Mild    |
| * Liver  |               | Basophilic Focus | Minimal |
| * Mammary Gland                                |               | Hyperplasia      | Minimal |
| * Pancreas                                     | Acinus        | Atrophy          | Minimal |
| * Pituitary Gland<br>[ Adenoma TGLS = 2-1 ]    | Pars Distalis | Adenoma          |         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 388

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST: 699

HISTO: 90-5201-388

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Blood Vessel              | * Bone                   | * Brain                    | * Clitoral Gland          |
| * Esophagus                 | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lymph Node, Bronchial     | * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    |
| * Ovary                     | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Stomach, Glandular        | * Trachea                | * Urinary Bladder          | * Uterus                  |

MISSING

\* Larynx

OBSERVATIONS

|  |               |                      |          |
|--|---------------|----------------------|----------|
| * Adrenal Cortex   |               | Leukemia Mononuclear |          |
| * Adrenal Medulla  |               | Leukemia Mononuclear |          |
| * Bone Marrow  |               | Leukemia Mononuclear |          |
| * Heart  |               | Cardiomyopathy       | Mild     |
| * Kidney   |               | Leukemia Mononuclear |          |
| * Larynx   |               |                      |          |
| Note: The larynx is present, the proper section for evaluation was not obtained. |               |                      |          |
| * Liver  |               | Leukemia Mononuclear |          |
| * Lung   |               | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal  |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ]  |               |                      |          |
| * Mammary Gland  |               | Fibroadenoma         |          |
| [ Fibroadenoma TGLS = 1-12 ]   |               |                      |          |
| * Pancreas   | Acinus        | Atrophy              | Mild     |
| * Pituitary Gland  | Pars Distalis | Cyst                 | Mild     |
|  | Pars Distalis | Leukemia Mononuclear |          |
| [ Cyst TGLS = 4-1 ]  |               |                      |          |
| * Spleen   |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-13 ]   |               |                      |          |
| * Stomach, Forestomach   |               | Hyperplasia          | Moderate |
|  |               | Inflammation         | Mild     |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene

**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014

**Time Report Requested:** 23:45:35

**First Dose M/F:** NA / NA

**Lab:** IIT

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**ANIMAL ID:** 388

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 699

**DOSE:** 750 PPM

**DISP:** Moribund Sacrifice

**HISTO:** 90-5201-388

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Thymus

Cyst

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 389

TRT#: 8

SEX: Female

DAY ON TEST: 736

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-389

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    | * Ovary                     |
| * Pancreas               | * Salivary Glands          | * Skin                    | * Spleen                    |
| * Thymus                 | * Trachea                  | * Urinary Bladder         | * Uterus                    |

MISSING

\* Parathyroid Gland

OBSERVATIONS

|                           |  |                           |                     |
|---------------------------|--|---------------------------|---------------------|
| * Adrenal Cortex          |  | Vacuolization Cytoplasmic | Mild                |
| * Kidney                  | Renal Tubule                             | Hyperplasia               | Mild                |
|                           |  | Nephropathy               | Marked              |
|                           | [ Nephropathy TGLS = 2-7 ]               |                           |                     |
| * Larynx                  | Respirat Epith                           | Hyperplasia               | Mild                |
| * Liver                   |  | Basophilic Focus          | Mild                |
|                           |  | Eosinophilic Focus        | Mild                |
|                           |  | Vacuolization Cytoplasmic | Moderate            |
|                           | [ Basophilic Focus TGLS = 3-5 ]          |                           |                     |
|                           | [ Eosinophilic Focus TGLS = 7-5 ]        |                           |                     |
|                           | [ Vacuolization Cytoplasmic TGLS = 3-5 ] |                           |                     |
| * Lung                    |  | Inflammation              | Granulomatous, Mild |
| * Lymph Node, Mediastinal |  | Hemorrhage                | Moderate            |
| * Mammary Gland           |  | Galactoceles              | Moderate            |
|                           | [ Galactoceles TGLS = 1-8 ]              |                           |                     |
| * Pituitary Gland         | Pars Distalis                            | Adenoma                   |                     |
|                           | [ Adenoma TGLS = 5-1 ]                   |                           |                     |
| * Stomach, Forestomach    |  | Hyperplasia               | Moderate            |
|                           |  | Inflammation              | Mild                |
| * Stomach, Glandular      |  | Inflammation              | Minimal             |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 389

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 736

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-389

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Thyroid Gland

C Cell

Carcinoma

[ Carcinoma TGLS = 4-3 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 390

TRT#: 8

SEX: Female

DAY ON TEST: 735

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-390

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Liver                  | * Lung                     | * Lymph Node, Mandibular  | * Nose                      |
| * Ovary                  | * Parathyroid Gland        | * Pituitary Gland         | * Salivary Glands           |
| * Skin                   | * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                            |        |              |                 |
|----------------------------|--------|--------------|-----------------|
| * Adrenal Cortex           |        | Degeneration | Cystic, Minimal |
| * Kidney                   |        | Cyst         | Mild            |
|                            |        | Nephropathy  | Moderate        |
| [ Nephropathy TGLS = 1-7 ] |        |              |                 |
| * Lymph Node, Mediastinal  |        | Hemorrhage   | Minimal         |
|                            |        | Pigmentation | Minimal         |
| * Lymph Node, Mesenteric   |        | Hemorrhage   | Moderate        |
| * Mammary Gland            |        | Hyperplasia  | Moderate        |
| * Pancreas                 | Acinus | Atrophy      | Marked          |

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 391

TRT#: 8

SEX: Female

DAY ON TEST: 736

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-391

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Bronchial  | * Lymph Node, Mandibular   | * Nose                    | * Ovary                     |
| * Pancreas               | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         | * Uterus                    |

OBSERVATIONS

|                           |                |                              |              |
|---------------------------|----------------|------------------------------|--------------|
| * Adrenal Cortex          |                | Degeneration                 | Cystic, Mild |
|                           |                | Hyperplasia                  | Minimal      |
| * Kidney                  |                | Nephropathy                  | Mild         |
| * Liver                   |                | Basophilic Focus             | Mild         |
|                           |                | Clear Cell Focus             | Minimal      |
| * Lung                    | Alveolar Epith | Hyperplasia                  | Minimal      |
| * Lymph Node, Mediastinal |                | Hemorrhage                   | Mild         |
|                           |                | Pigmentation                 | Mild         |
| * Lymph Node, Mesenteric  |                | Hyperplasia                  | Minimal      |
| * Mammary Gland           |                | Fibroadenoma                 |              |
|                           |                | [ Fibroadenoma TGLS = 1-12 ] |              |
| * Pituitary Gland         | Pars Distalis  | Hyperplasia                  | Mild         |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 392

TRT#: 8

SEX: Female

DAY ON TEST: 734

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-392

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla         | * Blood Vessel              | * Bone                   | * Brain                    |
| * Esophagus               | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Larynx                    | * Lung                   | * Lymph Node, Mandibular   |
| * Lymph Node, Mesenteric  | * Nose                      | * Ovary                  | * Parathyroid Gland        |
| * Salivary Glands         | * Skin                      | * Stomach, Forestomach   | * Thymus                   |
| * Thyroid Gland           | * Trachea                   | * Urinary Bladder        | * Uterus                   |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                                   |                |                                  |          |
|-----------------------------------|----------------|----------------------------------|----------|
| * Adrenal Cortex                  |                | Hyperplasia                      | Mild     |
| * Bone Marrow                     | Erythroid Cell | Hyperplasia                      | Moderate |
| * Clitoral Gland                  | Bilateral      | Hyperplasia                      | Moderate |
| [ Hyperplasia TGLS = 1-9 ]        |                |                                  |          |
| * Kidney                          |                | Nephropathy                      | Minimal  |
| * Liver                           |                | Basophilic Focus                 | Minimal  |
| * Lymph Node, Mediastinal         |                | Pigmentation                     | Mild     |
| * Mammary Gland                   |                | Fibroadenoma                     | Multiple |
|                                   |                | Galactocele                      | Marked   |
|                                   |                | Hyperplasia                      | Mild     |
| [ Fibroadenoma TGLS = 3-8; 2-12 ] |                |                                  |          |
| [ Galactocele TGLS = 2-12 ]       |                |                                  |          |
| Mesentery                         | Fat            | Necrosis                         | Mild     |
| [ Necrosis TGLS = 4-13 ]          |                |                                  |          |
| * Pancreas                        | Acinus         | Atrophy                          | Mild     |
| * Pituitary Gland                 | Pars Distalis  | Hyperplasia                      | Mild     |
| [ Hyperplasia TGLS = 5-1 ]        |                |                                  |          |
| * Spleen                          |                | Hematopoietic Cell Proliferation | Mild     |
| * Stomach, Glandular              |                | Cyst                             | Mild     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 392

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 734

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-392

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 393

TRT#: 8

SEX: Female

DAY ON TEST: 735

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-393

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Mammary Gland           | * Nose                      |
| * Ovary                  | * Pancreas                 | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                           |                |                       |                     |
|---------------------------|----------------|-----------------------|---------------------|
| * Adrenal Cortex          |                | Angiectasis           | Minimal             |
|                           |                | Hyperplasia           | Minimal             |
| * Kidney                  |                | Nephropathy           | Mild                |
| * Liver                   |                | Basophilic Focus      | Mild                |
| * Lung                    | Alveolar Epith | Hyperplasia           | Mild                |
|                           |                | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mediastinal |                | Hemorrhage            | Mild                |
| * Parathyroid Gland       |                | Hyperplasia           | Minimal             |
| * Pituitary Gland         | Pars Distalis  | Hyperplasia           | Mild                |
| * Uterus                  | Endometrium    | Cyst                  | Moderate            |

[ Cyst TGLS = 1-9 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

**ANIMAL ID:** 394

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-394

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

|                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lung                   |
| * Lymph Node, Bronchial    | * Lymph Node, Mandibular  | * Nose                      | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           | * Skin                   |
| * Spleen                   | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Thyroid Gland            | * Trachea                 | * Urinary Bladder           | * Uterus                 |

**OBSERVATIONS**

|                              |               |                  |              |
|------------------------------|---------------|------------------|--------------|
| * Adrenal Cortex             |               | Degeneration     | Cystic, Mild |
| * Bone Marrow                |               | Hyperplasia      | Mild         |
| * Kidney                     |               | Nephropathy      | Minimal      |
| * Liver                      |               | Basophilic Focus | Mild         |
| * Lymph Node, Mediastinal    |               | Hemorrhage       | Mild         |
| * Lymph Node, Mesenteric     |               | Hemorrhage       | Mild         |
| * Mammary Gland              |               | Fibroadenoma     |              |
|                              |               | Hyperplasia      | Minimal      |
| [ Fibroadenoma TGLS = 1-12 ] |               |                  |              |
| [ Hyperplasia TGLS = 2-8 ]   |               |                  |              |
| * Pituitary Gland            | Pars Distalis | Hyperplasia      | Mild         |
| [ Hyperplasia TGLS = 4-1 ]   |               |                  |              |

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 395

TRT#: 8

SEX: Female

DAY ON TEST: 703

DOSE: 750 PPM

DISP: Natural Death

HISTO: 90-5201-395

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | * Blood Vessel             | * Bone                    |
| * Bone Marrow               | * Brain                  | * Clitoral Gland           | * Esophagus               |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Larynx                    | * Lung                   | * Lymph Node, Bronchial    | * Lymph Node, Mandibular  |
| * Lymph Node, Mediastinal   | * Lymph Node, Mesenteric | * Nose                     | * Ovary                   |
| * Pancreas                  | * Parathyroid Gland      | * Salivary Glands          | * Skin                    |
| * Stomach, Glandular        | * Thymus                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           | * Uterus                 |                            |                           |

OBSERVATIONS

|                            |               |                                  |         |
|----------------------------|---------------|----------------------------------|---------|
| * Kidney                   |               | Cyst                             | Mild    |
|                            |               | Nephropathy                      | Marked  |
| [ Nephropathy TGLS = 1-7 ] |               |                                  |         |
| * Liver                    |               | Basophilic Focus                 | Minimal |
|                            |               | Congestion                       | Mild    |
| * Mammary Gland            |               | Hyperplasia                      | Mild    |
| * Pituitary Gland          | Pars Distalis | Adenoma                          |         |
| [ Adenoma TGLS = 2-1 ]     |               |                                  |         |
| * Spleen                   |               | Hematopoietic Cell Proliferation | Mild    |
| * Stomach, Forestomach     |               | Hyperplasia                      | Mild    |
|                            |               | Inflammation                     | Mild    |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 396

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Natural Death

DAY ON TEST: 655

HISTO: 90-5201-396

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                          |                          |             |
|--------------------------|--------------------------|--------------------------|-------------|
| * Blood Vessel           | * Bone                   | * Clitoral Gland         | * Esophagus |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Small, Ileum | * Larynx    |
| * Mammary Gland          | * Parathyroid Gland      | * Salivary Glands        |             |

AUTO PRECLUDES DIAG.

- \* Intestine Small, Jejunum

OBSERVATIONS

- |                             |   |                      |      |
|-----------------------------|---|----------------------|------|
| * Adrenal Cortex            |   | Leukemia Mononuclear |      |
| * Adrenal Medulla           |   | Leukemia Mononuclear |      |
| * Bone Marrow               |   | Leukemia Mononuclear |      |
| * Brain                     |   | Leukemia Mononuclear |      |
| * Heart                     |   | Leukemia Mononuclear |      |
| * Intestine Large, Rectum   |   | Leukemia Mononuclear |      |
| * Intestine Small, Duodenum |   | Leukemia Mononuclear |      |
| * Islets, Pancreatic        |   | Adenoma              |      |
| * Kidney                    |   | Leukemia Mononuclear |      |
|                             |   | Nephropathy          | Mild |
| * Liver                     |   | Leukemia Mononuclear |      |
|                             | [ Leukemia Mononuclear TGLS = 4-12;5-5,12 ] |                      |      |
| * Lung                      |   | Leukemia Mononuclear |      |
| * Lymph Node, Bronchial     |   | Leukemia Mononuclear |      |
| * Lymph Node, Mandibular    |   | Leukemia Mononuclear |      |
| * Lymph Node, Mediastinal   |   | Leukemia Mononuclear |      |
| * Lymph Node, Mesenteric    |   | Leukemia Mononuclear |      |
| * Nose                      |   | Leukemia Mononuclear |      |
| * Ovary                     |   | Leukemia Mononuclear |      |
| * Pancreas                  | Acinus                                      | Atrophy              | Mild |
|                             |   | Leukemia Mononuclear |      |
| * Pituitary Gland           | Pars Distalis                               | Adenoma              |      |
|                             |   | Leukemia Mononuclear |      |
|                             | [ Leukemia Mononuclear TGLS = 2-1 ]         |                      |      |

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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|                       |                      |                            |                           |
|-----------------------|----------------------|----------------------------|---------------------------|
| <b>ANIMAL ID:</b> 396 | <b>TRT#:</b> 8       | <b>SEX:</b> Female         | <b>DAY ON TEST:</b> 655   |
|                       | <b>DOSE:</b> 750 PPM | <b>DISP:</b> Natural Death | <b>HISTO:</b> 90-5201-396 |

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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|                                     |                      |      |
|-------------------------------------|----------------------|------|
| * Skin                              | Leukemia Mononuclear |      |
| * Spleen                            | Leukemia Mononuclear |      |
| [ Leukemia Mononuclear TGLS = 1-5 ] |                      |      |
| * Stomach, Forestomach              | Leukemia Mononuclear |      |
| * Stomach, Glandular                | Leukemia Mononuclear |      |
|                                     | Necrosis             | Mild |
|                                     | Ulcer                | Mild |
| * Thymus                            | Leukemia Mononuclear |      |
| * Thyroid Gland                     | Leukemia Mononuclear |      |
| * Trachea                           | Leukemia Mononuclear |      |
| * Urinary Bladder                   | Leukemia Mononuclear |      |
| * Uterus                            | Leukemia Mononuclear |      |

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 397

TRT#: 8

SEX: Female

DAY ON TEST: 735

DOSE: 750 PPM

DISP: Terminal Sacrifice

HISTO: 90-5201-397

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | * Blood Vessel            | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Heart                     | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    | * Lymph Node, Mesenteric |
| * Nose                     | * Ovary                   | * Pancreas                  | * Parathyroid Gland      |
| * Salivary Glands          | * Skin                    | * Stomach, Forestomach      | * Thymus                 |
| * Trachea                  | * Urinary Bladder         | * Uterus                    |                          |

MISSING

- \* Lymph Node, Bronchial

OBSERVATIONS

- |                                     |               |                      |          |
|-------------------------------------|---------------|----------------------|----------|
| * Adrenal Cortex                    |               | Leukemia Mononuclear |          |
| * Bone Marrow                       |               | Hyperplasia          | Mild     |
| * Kidney                            |               | Leukemia Mononuclear |          |
|                                     |               | Nephropathy          | Mild     |
| * Liver                             |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 3-5 ] |               |                      |          |
| * Lung                              |               | Leukemia Mononuclear |          |
| * Lymph Node, Mandibular            |               | Leukemia Mononuclear |          |
| * Lymph Node, Mediastinal           |               | Leukemia Mononuclear |          |
|                                     |               | Pigmentation         | Minimal  |
| * Mammary Gland                     |               | Fibroadenoma         |          |
| [ Fibroadenoma TGLS = 1-8,12,13 ]   |               |                      |          |
| * Pituitary Gland                   | Pars Distalis | Hyperplasia          | Moderate |
| [ Hyperplasia TGLS = 4-1 ]          |               |                      |          |
| * Spleen                            |               | Leukemia Mononuclear |          |
| [ Leukemia Mononuclear TGLS = 2-5 ] |               |                      |          |
| * Stomach, Glandular                | Glands        | Cyst                 | Mild     |
| * Thyroid Gland                     | C Cell        | Adenoma              |          |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 398

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-398

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Spleen                    |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Thymus                  | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

OBSERVATIONS

|                           |                            |                            |                     |
|---------------------------|----------------------------|----------------------------|---------------------|
| * Adrenal Cortex          |                            | Angiectasis                | Minimal             |
| * Kidney                  |                            | Nephropathy                | Mild                |
|                           |                            | Pigmentation               | Mild                |
| * Liver                   |                            | Basophilic Focus           | Minimal             |
|                           |                            | Hepatodiaphragmatic Nodule | Minimal             |
| * Lung                    |                            | Inflammation               | Granulomatous, Mild |
| * Lymph Node, Bronchial   |                            | Hemorrhage                 | Mild                |
| * Lymph Node, Mediastinal |                            | Pigmentation               | Minimal             |
| * Mammary Gland           |                            | Hyperplasia                | Mild                |
|                           | [ Hyperplasia TGLS = 1-8 ] |                            |                     |
| * Nose                    |                            | Foreign Body               | Minimal             |
|                           |                            | Inflammation               | Mild                |
| * Pituitary Gland         | Pars Distalis              | Adenoma                    | Multiple            |
|                           | [ Adenoma TGLS = 2-1 ]     |                            |                     |

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 399

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 735

HISTO: 90-5201-399

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | * Blood Vessel             | * Bone                    | * Bone Marrow               |
| * Brain                  | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Bronchial     |
| * Lymph Node, Mandibular | * Lymph Node, Mesenteric   | * Nose                    | * Ovary                     |
| * Parathyroid Gland      | * Salivary Glands          | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

OBSERVATIONS

|                           |               |                              |                  |
|---------------------------|---------------|------------------------------|------------------|
| * Adrenal Cortex          |               | Angiectasis                  | Minimal          |
| Eye                       | Lens          | Cataract                     | Mild             |
|                           | Retina        | Degeneration                 | Moderate         |
|                           |               | [ Cataract TGLS = 4-12 ]     |                  |
|                           |               | [ Degeneration TGLS = 4-12 ] |                  |
| * Kidney                  |               | Leukemia Mononuclear         |                  |
|                           |               | Nephropathy                  | Moderate         |
|                           |               | Pigmentation                 | Mild             |
|                           |               | [ Nephropathy TGLS = 3-7 ]   |                  |
| * Larynx                  |               | Leukemia Mononuclear         |                  |
| * Liver                   |               | Basophilic Focus             | Minimal          |
|                           |               | Leukemia Mononuclear         |                  |
| * Lung                    |               | Inflammation                 | Chronic, Minimal |
|                           |               | Leukemia Mononuclear         |                  |
| * Lymph Node, Mediastinal |               | Pigmentation                 | Minimal          |
| * Mammary Gland           |               | Galactocele                  | Moderate         |
|                           |               | [ Galactocele TGLS = 2-8 ]   |                  |
| * Pancreas                | Acinus        | Atrophy                      | Minimal          |
| * Pituitary Gland         | Pars Distalis | Hyperplasia                  | Minimal          |
|                           |               | [ Hyperplasia TGLS = 5-1 ]   |                  |
| * Skin                    | Sebaceous GI  | Carcinoma                    |                  |

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05210-03  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Ethylbenzene  
**CAS Number:** 100-41-4

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 23:45:35  
**First Dose M/F:** NA / NA  
**Lab:** IIT

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**ANIMAL ID:** 399

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 735

**DOSE:** 750 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 90-5201-399

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Carcinoma TGLS = 1-12 ]

\* Spleen

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05210-03

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ethylbenzene

CAS Number: 100-41-4

Date Report Requested: 10/18/2014

Time Report Requested: 23:45:35

First Dose M/F: NA / NA

Lab: IIT

ANIMAL ID: 400

TRT#: 8

DOSE: 750 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 736

HISTO: 90-5201-400

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

|                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Blood Vessel            | * Bone                      |
| * Bone Marrow            | * Clitoral Gland           | * Esophagus               | * Heart                     |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Larynx                    |
| * Lung                   | * Lymph Node, Mesenteric   | * Mammary Gland           | * Nose                      |
| * Ovary                  | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Spleen                 | * Stomach, Forestomach     | * Stomach, Glandular      | * Thymus                    |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

MISSING

\* Lymph Node, Bronchial

OBSERVATIONS

|                            |                   |                    |               |
|----------------------------|-------------------|--------------------|---------------|
| * Brain                    |                   | Hemorrhage         | Mild          |
| * Kidney                   |                   | Cyst               | Moderate      |
|                            |                   | Nephropathy        | Moderate      |
| [ Nephropathy TGLS = 2-7 ] |                   |                    |               |
| * Liver                    |                   | Eosinophilic Focus | Mild          |
|                            |                   | Inflammation       | Chronic, Mild |
|                            |                   | Necrosis           | Minimal       |
| * Lymph Node, Mandibular   |                   | Hemorrhage         | Minimal       |
| * Lymph Node, Mediastinal  |                   | Hemorrhage         | Minimal       |
|                            |                   | Pigmentation       | Mild          |
| Mesentery                  | Fat               | Necrosis           | Mild          |
| [ Necrosis TGLS = 1-12 ]   |                   |                    |               |
| * Pancreas                 | Acinus            | Atrophy            | Minimal       |
| * Pituitary Gland          | Pars Distalis     | Adenoma            |               |
| [ Adenoma TGLS = 4-1 ]     |                   |                    |               |
| * Thyroid Gland            | Bilateral, C Cell | Hyperplasia        | Mild          |

PRIMARY CAUSE OF DEATH

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\*\* END OF REPORT \*\*

\* PROTOCOL REQUIRED TISSUE