

Experiment Number: 20107 - 01
Test Type: 90-DAY
Route: GAVAGE
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

NTP Study Number: C20107
Lock Date: 07/14/2004
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: NONE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406169

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | |
|--------------------------------|----------------------------------|-------------------------|
| * Adrenal Cortex | Vacuolization Cytoplasmic | Minimal |
| * Eye | | |
| Note: One optic nerve missing. | | |
| * Heart | Cardiomyopathy | Minimal |
| * Kidney | Nephropathy | Minimal |
| * Liver | Inflammation | Chronic Active, Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |
| * Pancreas | Infiltration Cellular | Lymphocyte, Moderate |
| * Spleen | Hematopoietic Cell Proliferation | Minimal |
| | Pigmentation | Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

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N,N-Dimethyl-p-toluidine

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First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 2

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406170

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Blood Vessel | * Bone | * Bone Marrow |
| * Brain | * Esophagus | * Eye | * Harderian Gland |
| * 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 | * Parathyroid Gland | * Pituitary Gland |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Testes |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | |
|------------------|----------------------------------|-------------------------|
| * Adrenal Cortex | Vacuolization Cytoplasmic | Minimal |
| * Epididymis | Inflammation | Minimal |
| * Heart | Cardiomyopathy | Minimal |
| * Kidney | Nephropathy | Minimal |
| * Liver | Fatty Change | Focal, Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |
| * Pancreas | Infiltration Cellular | Lymphocyte, Mild |
| * Spleen | Hematopoietic Cell Proliferation | Minimal |
| | Pigmentation | Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 3

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406171

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Adrenal Cortex
 - * Eye
 - Note: Both optic nerves missing.
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - * Pancreas
 - * Spleen
- | | | |
|--|---|--|
| | <ul style="list-style-type: none"> Vacuolization Cytoplasmic Cardiomyopathy Nephropathy Inflammation Necrosis Inflammation Infiltration Cellular Hematopoietic Cell Proliferation Pigmentation | <ul style="list-style-type: none"> Minimal Minimal Minimal Chronic Active, Minimal Minimal Chronic Active, Minimal Lymphocyte, Mild Minimal Minimal |
|--|---|--|

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 4

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406172

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Adrenal Cortex
 - * Eye
 - Note: Both optic nerves missing.
 - * Heart
 - * Liver
 - * Lung
 - * Pancreas
 - * Spleen
- | | | | |
|--|-------------|----------------------------------|-------------------------|
| | | Vacuolization Cytoplasmic | Mild |
| | | Cardiomyopathy | Mild |
| | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | | Infiltration Cellular | Lymphocyte, Mild |
| | | Hematopoietic Cell Proliferation | Minimal |
| | Mesothelium | Hypertrophy | Mild |
| | | Pigmentation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 5

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406173

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Stomach, Glandular
- * Urinary Bladder
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Nose
- * Seminal Vesicle
- * Testes
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Skin
- * Thyroid Gland
- * Bone Marrow
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Prostate
- * Stomach, Forestomach
- * Trachea

MISSING

- * Lymph Node, Mandibular
- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex
 - * Epididymis
 - * Eye
 - Note: One optic nerve missing.
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - * Pancreas
 - * Preputial Gland
 - * Spleen
 - * Thymus
- | | | |
|--|----------------------------------|----------------------|
| | Vacuolization Cytoplasmic | Minimal |
| | Inflammation | Minimal |
| | Cardiomyopathy | Mild |
| | Nephropathy | Minimal |
| | Necrosis | Minimal |
| | Inflammation | Chronic Active, Mild |
| | Infiltration Cellular | Lymphocyte, Minimal |
| | Ectasia | Mild |
| | Hematopoietic Cell Proliferation | Minimal |
| | Pigmentation | Minimal |
| | Hemorrhage | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 6

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406174

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|----------------------------|------------|----------------------------------|-------------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Intestine Small, Jejunum | | Hyperplasia | Lymphoid, Minimal |
| * Kidney | | Nephropathy | Minimal |
| * Liver | | Inflammation | Chronic Active, Minimal |
| * Lung | | Inflammation | Chronic Active, Mild |
| * Pancreas | | Infiltration Cellular | Lymphocyte, Minimal |
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Spleen | Capsule | Fibrosis | Minimal |
| | | Hematopoietic Cell Proliferation | Minimal |
| | | Pigmentation | Minimal |
| * Trachea | | Inflammation | Chronic Active, Mild |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

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Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 7

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406175

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Blood Vessel | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * 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 | * Parathyroid Gland | * Pituitary Gland |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Testes |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|----------------------------------|----------------|----------------------------------|-------------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Minimal |
| * Eye | | | |
| Note: Both optic nerves missing. | | | |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Lung | | Inflammation | Chronic Active, Minimal |
| Lymph Node | Mediastinal | Hyperplasia | Lymphoid, Mild |
| [Hyperplasia TGLs = 1-14] | | | |
| * Nose | Respirat Epith | Hyperplasia | Minimal |
| * Pancreas | | Infiltration Cellular | Lymphocyte, Mild |
| * Spleen | | Hematopoietic Cell Proliferation | Minimal |
| | | Pigmentation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 8

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406176

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Blood Vessel | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * 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 | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Testes | * Thymus | * Thyroid Gland | * Urinary Bladder |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|-------------------|-------------|----------------------------------|-------------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Minimal |
| * Harderian Gland | | Pigmentation | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Minimal |
| | | Nephropathy | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Lung | | Inflammation | Chronic Active, Mild |
| * Spleen | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Minimal |
| * Trachea | | Inflammation | Chronic Active, Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 9

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406177

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla | * Blood Vessel | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * 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 | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Testes |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|--------------------------------|-------------|----------------------------------|-------------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Minimal |
| * Eye | | | |
| Note: One optic nerve missing. | | | |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Pancreas | | Infiltration Cellular | Lymphocyte, Minimal |
| * Prostate | Epithelium | Hyperplasia | Mild |
| * Spleen | | Hematopoietic Cell Proliferation | Minimal |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406178

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla | * Blood Vessel | * Bone | * Bone Marrow |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * 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 | * Parathyroid Gland | * Pituitary Gland |
| * Preputial Gland | * Prostate | * Salivary Glands | * Seminal Vesicle |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Testes |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|-------------------|------------|----------------------------------|-------------------------|
| * Adrenal Cortex | | Vacuolization Cytoplasmic | Minimal |
| * Harderian Gland | | Pigmentation | Mild |
| * Heart | | Cardiomyopathy | Mild |
| * Kidney | | Nephropathy | Minimal |
| * Liver | Hepatocyte | Necrosis | Minimal |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Pancreas | | Infiltration Cellular | Lymphocyte, Mild |
| * Spleen | | Hematopoietic Cell Proliferation | Minimal |
| | | Pigmentation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 11

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406179

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Hepatocyte

Olfactory Epi

Respirat Epith

Hyperplasia

Mineralization

Nephropathy

Pigmentation

Hypertrophy

Inflammation

Hemorrhage

Inflammation

Degeneration

Hyperplasia

Congestion

Hematopoietic Cell Proliferation

Pigmentation

Mild

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Mild

Chronic Active, Minimal

Minimal

Minimal

Minimal

Mild

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 12

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406180

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Hyperplasia

Mineralization

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Inflammation

Pigmentation

Inflammation

Degeneration

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Mild

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Chronic Active, Minimal

Minimal

Squamous, Minimal

Minimal

Minimal

Mild

Mild

Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 13

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406181

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Respirat Epith

Mesothelium

Hyperplasia

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Inflammation

Pigmentation

Inflammation

Metaplasia

Congestion

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Mild

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Chronic Active, Minimal

Squamous, Mild

Mild

Mild

Minimal

Moderate

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 14

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406182

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lung
Trachea

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

* Nose

* Spleen

Respirat Epith

Hyperplasia

Nephropathy

Pigmentation

Inflammation

Metaplasia

Congestion

Hematopoietic Cell Proliferation

Pigmentation

Mild

Minimal

Minimal

Chronic Active, Minimal

Squamous, Mild

Minimal

Mild

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 15

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406183

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Respirat Epith

Capsule

Hyperplasia

Mineralization

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Inflammation

Inflammation

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Pigmentation

Mild

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Chronic Active, Minimal

Squamous, Mild

Minimal

Minimal

Mild

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 16

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406184

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------|------------------------|------------------------|--------|
| Lung | Lymph Node, Mesenteric | * Stomach, Forestomach | Thymus |
| Trachea | | | |

OBSERVATIONS

| | | | |
|---------------|----------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Kidney | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Nose | Respirat Epith | Metaplasia | Squamous, Minimal |
| * Spleen | | Congestion | Minimal |
| | Capsule | Fibrosis | Minimal |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Mild |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 17

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406185

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Hyperplasia

Mineralization

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Inflammation

Pigmentation

Inflammation

Degeneration

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Mild

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Chronic Active, Minimal

Minimal

Squamous, Minimal

Mild

Minimal

Mild

Minimal

Mild

Experiment Number: 20107 - 01
Test Type: 90-DAY
Route: GAVAGE
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
N,N-Dimethyl-p-toluidine
CAS Number: 99-97-8

Date Report Requested: 09/07/2016
Time Report Requested: 11:43:16
First Dose M/F: 10/20/03 / 10/21/03
Lab: BAT

ANIMAL ID: 18

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406186

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

Hyperplasia

Mild

* Kidney

Nephropathy

Minimal

Pigmentation

Minimal

* Liver

Hematopoietic Cell Proliferation

Minimal

Inflammation

Chronic Active, Minimal

Hepatocyte

Necrosis

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Minimal

Respirat Epith

Hyperplasia

Minimal

* Spleen

Congestion

Minimal

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

Experiment Number: 20107 - 01
Test Type: 90-DAY
Route: GAVAGE
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 N,N-Dimethyl-p-toluidine
CAS Number: 99-97-8

Date Report Requested: 09/07/2016
Time Report Requested: 11:43:16
First Dose M/F: 10/20/03 / 10/21/03
Lab: BAT

ANIMAL ID: 19

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406187

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

Hyperplasia

Mild

* Kidney

Nephropathy

Minimal

Pigmentation

Minimal

* Liver

Hematopoietic Cell Proliferation

Minimal

Hepatocyte

Hypertrophy

Minimal

Inflammation

Chronic Active, Minimal

Hepatocyte

Necrosis

Minimal

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Minimal

Respirat Epith

Metaplasia

Squamous, Minimal

* Spleen

Congestion

Minimal

Capsule

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Minimal

Pigmentation

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 20

TRT#: 3

SEX: Male

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406188

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

Hyperplasia

Mild

* Kidney

Nephropathy

Minimal

Pigmentation

Minimal

* Liver

Hematopoietic Cell Proliferation

Minimal

Inflammation

Chronic Active, Minimal

Hepatocyte

Necrosis

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Respirat Epith

Metaplasia

Squamous, Mild

* Spleen

Congestion

Minimal

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 21

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406189

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Renal Tubule

Papilla

Hepatocyte

Olfactory Epi

Respirat Epith

Glands

Respirat Epith

Capsule

Mesothelium

Hyperplasia

Dilatation

Mineralization

Necrosis

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Moderate

Minimal

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Mild

Minimal

Mild

Squamous, Moderate

Minimal

Minimal

Mild

Mild

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 22

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406190

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

[Congestion TGLs = 1-5]

* Stomach, Forestomach

Hyperplasia

Mineralization

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Inflammation

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Inflammation

Ulcer

Moderate

Moderate

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Chronic Active, Minimal

Moderate

Mild

Minimal

Squamous, Minimal

Mild

Moderate

Mild

Mild

Mild

Minimal

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 23

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406191

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Hepatocyte

Olfactory Epi

Glands

Respirat Epith

Capsule

Mesothelium

Hyperplasia

Mineralization

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Inflammation

Pigmentation

Inflammation

Degeneration

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Mild

Minimal

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Chronic Active, Minimal

Moderate

Mild

Squamous, Mild

Mild

Mild

Mild

Minimal

Mild

Experiment Number: 20107 - 01
 Test Type: 90-DAY
 Route: GAVAGE
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 N,N-Dimethyl-p-toluidine
 CAS Number: 99-97-8

Date Report Requested: 09/07/2016
 Time Report Requested: 11:43:16
 First Dose M/F: 10/20/03 / 10/21/03
 Lab: BAT

ANIMAL ID: 24

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406192

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lung

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

OBSERVATIONS

* Bone Marrow

Hyperplasia

Moderate

* Kidney

Mineralization

Minimal

Papilla

Necrosis

Minimal

Nephropathy

Minimal

Pigmentation

Minimal

* Liver

Hematopoietic Cell Proliferation

Minimal

Hepatodiaphragmatic Nodule

Hepatocyte

Hypertrophy

Minimal

Inflammation

Chronic Active, Minimal

Hepatocyte

Necrosis

Minimal

[Hepatodiaphragmatic Nodule

TGLs = 1-14]

* Nose

Olfactory Epi

Degeneration

Mild

Glands

Hyperplasia

Mild

Respirat Epith

Hyperplasia

Mild

Respirat Epith

Metaplasia

Squamous, Moderate

* Spleen

Congestion

Mild

Capsule

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Minimal

Pigmentation

Mild

Trachea

Inflammation

Chronic Active, Minimal

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 25

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406193

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Renal Tubule

Papilla

Hepatocyte

Hepatocyte

Alveolus

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Capsule

Hyperplasia

Dilatation

Mineralization

Necrosis

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Inflammation

Necrosis

Inflammation

Metaplasia

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Pigmentation

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Chronic Active, Minimal

Squamous, Focal, Mild

Mild

Mild

Mild

Squamous, Moderate

Mild

Minimal

Mild

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01
Test Type: 90-DAY
Route: GAVAGE
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 N,N-Dimethyl-p-toluidine
CAS Number: 99-97-8

Date Report Requested: 09/07/2016
Time Report Requested: 11:43:16
First Dose M/F: 10/20/03 / 10/21/03
Lab: BAT

ANIMAL ID: 26

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406194

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

Hyperplasia

Moderate

* Kidney

Mineralization

Minimal

Papilla

Necrosis

Minimal

Nephropathy

Minimal

Pigmentation

Minimal

* Liver

Hematopoietic Cell Proliferation

Minimal

Hepatocyte

Hypertrophy

Minimal

Inflammation

Chronic Active, Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Moderate

Glands

Hyperplasia

Mild

Respirat Epith

Metaplasia

Squamous, Moderate

* Spleen

Congestion

Mild

Capsule

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Mild

Pigmentation

Moderate

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 27

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406195

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Papilla

Hepatocyte

Hepatocyte

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Capsule

Mesothelium

Hyperplasia

Mineralization

Necrosis

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Inflammation

Necrosis

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Minimal

Chronic Active, Minimal

Mild

Minimal

Minimal

Squamous, Moderate

Mild

Minimal

Mild

Minimal

Moderate

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 28

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406196

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

Hyperplasia

Moderate

* Kidney

Mineralization

Minimal

Papilla

Necrosis

Minimal

Nephropathy

Minimal

Pigmentation

Minimal

* Liver

Hematopoietic Cell Proliferation

Minimal

Hepatocyte

Hypertrophy

Minimal

Inflammation

Chronic Active, Minimal

Hepatocyte

Necrosis

Minimal

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Moderate

Glands

Hyperplasia

Minimal

Respirat Epith

Metaplasia

Squamous, Mild

* Spleen

Congestion

Minimal

Capsule

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 29

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406197

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Trachea

Hepatocyte

Olfactory Epi

Respirat Epith

Glands

Respirat Epith

Capsule

Mesothelium

Hyperplasia

Mineralization

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Inflammation

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Inflammation

Moderate

Mild

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Chronic Active, Minimal

Moderate

Mild

Mild

Squamous, Moderate

Mild

Minimal

Mild

Minimal

Mild

Chronic Active, Minimal

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 30

TRT#: 5

SEX: Male

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406198

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Papilla

Hepatocyte

Olfactory Epi

Respirat Epith

Glands

Respirat Epith

Capsule

Mesothelium

Hyperplasia

Mineralization

Necrosis

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Inflammation

Necrosis

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Minimal

Chronic Active, Minimal

Mild

Minimal

Mild

Squamous, Mild

Mild

Mild

Mild

Mild

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 31

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406199

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Renal Tubule

Papilla

Hepatocyte

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Olfactory Epi

Lymph Follic

Capsule

Mesothelium

Hyperplasia

Dilatation

Mineralization

Necrosis

Nephropathy

Pigmentation

Hypertrophy

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Metaplasia

Atrophy

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Mild

Minimal

Mild

Minimal

Mild

Mild

Minimal

Chronic Active, Minimal

Moderate

Mild

Mild

Squamous, Moderate

Mild

Mild

Mild

Moderate

Mild

Mild

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 32

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406200

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

Hyperplasia

Moderate

* Kidney

Mineralization

Moderate

Papilla

Necrosis

Mild

Nephropathy

Mild

Pigmentation

Mild

* Liver

Hematopoietic Cell Proliferation

Minimal

Hepatocyte

Hypertrophy

Minimal

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Moderate

Glands

Hyperplasia

Mild

Respirat Epith

Hyperplasia

Mild

Respirat Epith

Metaplasia

Squamous, Moderate

Olfactory Epi

Metaplasia

Mild

* Spleen

Lymph Follic

Atrophy

Mild

Congestion

Moderate

Capsule

Fibrosis

Moderate

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Mild

Pigmentation

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 33

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406201

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

OBSERVATIONS

* Bone Marrow

Hyperplasia

Moderate

* Kidney

Mineralization

Minimal

Papilla

Necrosis

Mild

Nephropathy

Minimal

Pigmentation

Minimal

* Liver

Hepatocyte

Hypertrophy

Minimal

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Moderate

Glands

Hyperplasia

Mild

Respirat Epith

Hyperplasia

Mild

Respirat Epith

Metaplasia

Squamous, Moderate

Olfactory Epi

Metaplasia

Mild

* Spleen

Lymph Follic

Atrophy

Mild

Congestion

Mild

Capsule

Fibrosis

Moderate

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Mild

Pigmentation

Mild

[Congestion TGLs = 1-5]

Trachea

Inflammation

Chronic Active, Minimal

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 34

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406202

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

Papilla

* Liver

Hepatocyte

Hepatocyte

[Hepatodiaphragmatic Nodule

TGLs = 2-14]

Lung

* Nose

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Olfactory Epi

* Spleen

Lymph Follic

Capsule

Mesothelium

[Congestion TGLs = 1-5]

Hyperplasia

Mineralization

Necrosis

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hepatodiaphragmatic Nodule

Hypertrophy

Inflammation

Necrosis

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Metaplasia

Atrophy

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Moderate

Mild

Minimal

Mild

Minimal

Minimal

Chronic Active, Minimal

Minimal

Minimal

Chronic Active, Minimal

Moderate

Moderate

Mild

Squamous, Moderate

Mild

Mild

Moderate

Moderate

Minimal

Mild

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 35

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406203

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

Hyperplasia

Moderate

* Kidney

Mineralization

Mild

Papilla

Necrosis

Minimal

Nephropathy

Minimal

Pigmentation

Minimal

* Liver

Hematopoietic Cell Proliferation

Minimal

Bile Duct

Hyperplasia

Minimal

Hepatocyte

Hypertrophy

Minimal

Inflammation

Chronic Active, Minimal

Hepatocyte

Necrosis

Minimal

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Moderate

Glands

Hyperplasia

Mild

Respirat Epith

Hyperplasia

Minimal

Respirat Epith

Metaplasia

Squamous, Moderate

Olfactory Epi

Metaplasia

Minimal

* Spleen

Lymph Follic

Atrophy

Minimal

Congestion

Mild

Capsule

Fibrosis

Mild

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Minimal

Pigmentation

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 36

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406204

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

OBSERVATIONS

* Bone Marrow

Hyperplasia

Moderate

* Kidney

Mineralization

Mild

Papilla

Necrosis

Mild

Nephropathy

Minimal

Pigmentation

Mild

* Liver

Hematopoietic Cell Proliferation

Minimal

Hepatocyte

Hypertrophy

Minimal

Inflammation

Chronic Active, Minimal

Hepatocyte

Necrosis

Minimal

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Moderate

Respirat Epith

Hyperplasia

Mild

Glands

Hyperplasia

Mild

Respirat Epith

Metaplasia

Squamous, Moderate

Olfactory Epi

Metaplasia

Minimal

* Spleen

Lymph Follic

Atrophy

Minimal

Congestion

Mild

Capsule

Fibrosis

Mild

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Minimal

Pigmentation

Mild

[Congestion TGLs = 1-5]

Trachea

Inflammation

Chronic Active, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 37

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406205

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Papilla

Bile Duct

Hepatocyte

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Lymph Follic

Capsule

Mesothelium

Hyperplasia

Mineralization

Necrosis

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hyperplasia

Hypertrophy

Inflammation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Atrophy

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Mild

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Chronic Active, Moderate

Moderate

Mild

Minimal

Squamous, Mild

Minimal

Moderate

Moderate

Mild

Minimal

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 38

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406206

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

[Congestion TGLs = 1-5]

* Stomach, Forestomach

Hyperplasia

Moderate

Mineralization

Mild

Nephropathy

Minimal

Pigmentation

Mild

Hematopoietic Cell Proliferation

Minimal

Bile Duct

Hyperplasia

Minimal

Hepatocyte

Hypertrophy

Minimal

Pigmentation

Minimal

Inflammation

Chronic Active, Minimal

Degeneration

Moderate

Olfactory Epi

Glands

Hyperplasia

Mild

Respirat Epith

Hyperplasia

Minimal

Respirat Epith

Metaplasia

Squamous, Moderate

Olfactory Epi

Metaplasia

Mild

Congestion

Mild

Capsule

Fibrosis

Mild

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Minimal

Pigmentation

Mild

Hyperplasia

Squamous, Minimal

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 39

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406207

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric Thymus

OBSERVATIONS

| | | | |
|------------------------|---------------------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Kidney | | Mineralization | Minimal |
| | | Nephropathy | Minimal |
| | | Pigmentation | Mild |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | Hepatocyte | Hypertrophy | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | | Pigmentation | Minimal |
| Lung | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| | Glands | Hyperplasia | Mild |
| | Respirat Epith | Hyperplasia | Minimal |
| | Respirat Epith | Metaplasia | Squamous, Moderate |
| | Olfactory Epi | Metaplasia | Mild |
| * Spleen | | Congestion | Moderate |
| | Capsule | Fibrosis | Moderate |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Mild |
| | [Congestion TGLs = 1-5] | | |
| * Stomach, Forestomach | | Hyperplasia | Squamous, Minimal |
| Trachea | | Inflammation | Chronic Active, Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 40

TRT#: 7

SEX: Male

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406208

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

* Stomach, Forestomach

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

* Kidney

* Liver

Lung

* Nose

* Spleen

Hepatocyte

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Olfactory Epi

Lymph Follic

Capsule

Mesothelium

Hyperplasia

Mineralization

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Inflammation

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Metaplasia

Atrophy

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Minimal

Minimal

Minimal

Minimal

Mild

Chronic Active, Minimal

Minimal

Chronic Active, Minimal

Moderate

Mild

Minimal

Squamous, Mild

Moderate

Minimal

Mild

Moderate

Mild

Mild

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 41

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406209

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Harderian Gland
- * 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
- * Parathyroid Gland
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Seminal Vesicle
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Testes
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Eye
 - Note: One optic nerve missing.
- * Heart Cardiomyopathy Minimal
- * Kidney Renal Tubule Dilatation Minimal
 - Mineralization Moderate
 - Papilla Necrosis Moderate
 - Nephropathy Mild
 - Pigmentation Mild
 - * Liver Hematopoietic Cell Proliferation Minimal
 - Hepatocyte Hypertrophy Mild
 - Hepatocyte Necrosis Minimal
 - Pigmentation Minimal
 - * Lung Inflammation Chronic Active, Minimal
 - * Nose Olfactory Epi Degeneration Moderate
 - Glands Hyperplasia Mild
 - Respirat Epith Hyperplasia Mild
 - Respirat Epith Metaplasia Squamous, Moderate
 - Olfactory Epi Metaplasia Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 41

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406209

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|-------------------|--------------|----------------------------------|------------------|
| * Pancreas | | Infiltration Cellular | Lymphocyte, Mild |
| * Salivary Glands | | Fibrosis | Mild |
| * Spleen | Lymph Follic | Atrophy | Moderate |
| | | Congestion | Moderate |
| | Capsule | Fibrosis | Moderate |
| | | Hematopoietic Cell Proliferation | Minimal |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Mild |

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 42

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406210

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Prostate
- * Stomach, Forestomach
- * Thyroid Gland
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Salivary Glands
- * Stomach, Glandular
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Seminal Vesicle
- * Testes
- * Urinary Bladder
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Preputial Gland
- * Skin
- * Thymus

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Eye
 - Note: Both optic nerves missing.
- * Heart
- * Kidney
- * Liver
- * Lung
- * Nose
- * Pancreas
- Mineralization
- Hyperplasia
- Cardiomyopathy
- Mineralization
- Papilla
- Necrosis
- Nephropathy
- Pigmentation
- Hepatocyte
- Hypertrophy
- Inflammation
- Pigmentation
- Inflammation
- Olfactory Epi
- Glands
- Respirat Epith
- Respirat Epith
- Olfactory Epi
- Mineralization
- Hyperplasia
- Necrosis
- Nephropathy
- Pigmentation
- Hypertrophy
- Inflammation
- Pigmentation
- Inflammation
- Degeneration
- Hyperplasia
- Hyperplasia
- Metaplasia
- Metaplasia
- Infiltration Cellular
- Mild
- Moderate
- Minimal
- Mild
- Moderate
- Minimal
- Mild
- Mild
- Chronic Active, Minimal
- Minimal
- Chronic Active, Minimal
- Moderate
- Mild
- Mild
- Squamous, Moderate
- Moderate
- Lymphocyte, Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 42

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406210

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Lymph Follic

Atrophy

Moderate

Congestion

Moderate

Capsule

Fibrosis

Moderate

Hematopoietic Cell Proliferation

Minimal

Mesothelium

Hypertrophy

Mild

Pigmentation

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 43

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406211

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- * Lymph Node, Mandibular
- * Mammary Gland

OBSERVATIONS

- * Adrenal Cortex
- * Bone Marrow
- * Harderian Gland
- * Kidney
- * Liver
- * Lung
- * Nose
- Renal Tubule
- Papilla
- Hepatocyte
- Hepatocyte
- [Hepatodiaphragmatic Nodule
- TGLs = 2-14]
- Olfactory Epi
- Glands
- Respirat Epith
- Olfactory Epi
- Vacuolization Cytoplasmic
- Hyperplasia
- Infiltration Cellular
- Dilatation
- Necrosis
- Nephropathy
- Pigmentation
- Hematopoietic Cell Proliferation
- Hepatodiaphragmatic Nodule
- Hypertrophy
- Inflammation
- Necrosis
- Pigmentation
- Inflammation
- Degeneration
- Hyperplasia
- Hyperplasia
- Metaplasia
- Minimal
- Moderate
- Lymphocyte, Moderate
- Moderate
- Mild
- Minimal
- Minimal
- Moderate
- Mild
- Chronic Active, Mild
- Minimal
- Minimal
- Chronic Active, Minimal
- Moderate
- Moderate
- Mild
- Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 43

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406211

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|----------------|----------------------------------|--------------------|
| * Spleen | Respirat Epith | Metaplasia | Squamous, Moderate |
| | Lymph Follic | Atrophy | Moderate |
| | | Congestion | Moderate |
| | Capsule | Fibrosis | Moderate |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Mild |
| | | Pigmentation | Mild |

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 44

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406212

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, Mesenteric | * Mammary Gland |
| * Parathyroid Gland | * Pituitary Gland | * Preputial Gland | * Prostate |
| * Salivary Glands | * Seminal Vesicle | * Skin | * Testes |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|--|----------------|----------------------------------|--------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Eye | | Cataract | Moderate |
| | Retina | Degeneration | Moderate |
| | Ciliary Body | Inflammation | Suppurative, Marked |
| | Antr Chamber | Inflammation | Suppurative, Marked |
| | Cornea | Ulcer | Marked |
| Note: The eye lesions affected only one eye. | | | |
| | [Cataract | TGLs = 1-10] | |
| | [Inflammation | TGLs = 1-10] | |
| * Harderian Gland | | Hemorrhage | Moderate |
| | Epithelium | Hyperplasia | Moderate |
| | | Inflammation | Chronic Active, Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Mild |
| | Papilla | Necrosis | Mild |
| | | Nephropathy | Minimal |
| | | Pigmentation | Mild |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | Hepatocyte | Hypertrophy | Mild |
| | | Inflammation | Chronic Active, Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 44

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406212

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | | |
|------------------------|---------------|----------------|----------------------------------|-------------------------|
| * Lung | | | Pigmentation | Minimal |
| Lymph Node | | Mediastinal | Inflammation | Chronic Active, Minimal |
| [Hyperplasia | TGLs = 3-14] | | Hyperplasia | Lymphoid, Mild |
| * Nose | | Olfactory Epi | Degeneration | Moderate |
| | | Glands | Hyperplasia | Mild |
| | | Respirat Epith | Hyperplasia | Mild |
| | | Respirat Epith | Metaplasia | Squamous, Moderate |
| | | Olfactory Epi | Metaplasia | Moderate |
| * Pancreas | | | Infiltration Cellular | Lymphocyte, Mild |
| * Spleen | | Lymph Follic | Atrophy | Moderate |
| | | | Congestion | Moderate |
| | | Capsule | Fibrosis | Moderate |
| | | | Hematopoietic Cell Proliferation | Mild |
| | | Mesothelium | Hypertrophy | Mild |
| | | | Pigmentation | Mild |
| [Congestion | TGLs = 2-5] | | | |
| * Stomach, Forestomach | | | Inflammation | Minimal |
| * Stomach, Glandular | | | Inflammation | Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 45

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406213

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Harderian Gland
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Glandular
- * Testes
- * Thymus
- * Thyroid Gland
- * Urinary Bladder

MISSING

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

OBSERVATIONS

- * Bone Marrow
 - Hyperplasia
 - Moderate
- * Kidney
 - Mineralization
 - Minimal
 - Papilla
 - Necrosis
 - Mild
 - Nephropathy
 - Minimal
 - Pigmentation
 - Mild
- * Liver
 - Basophilic Focus
 - Hematopoietic Cell Proliferation
 - Minimal
 - Hepatocyte
 - Hypertrophy
 - Mild
 - Pigmentation
 - Minimal
- * Lung
 - Alveolus
 - Infiltration Cellular
 - Histiocyte, Minimal
 - Inflammation
 - Chronic Active, Minimal
- * Nose
 - Olfactory Epi
 - Glands
 - Degeneration
 - Moderate
 - Hyperplasia
 - Mild
 - Respirat Epith
 - Hyperplasia
 - Minimal
 - Respirat Epith
 - Metaplasia
 - Squamous, Moderate
 - Olfactory Epi
 - Metaplasia
 - Moderate
- * Pancreas
 - Infiltration Cellular
 - Lymphocyte, Mild
- * Spleen
 - Lymph Follic
 - Atrophy
 - Mild
 - Congestion
 - Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 45

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406213

ORGAN AND ACCOUNTABLE SITE STATUS

Capsule

Fibrosis

Moderate

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Mild

Pigmentation

Mild

[Congestion TGLs = 1-5]

* Stomach, Forestomach

Inflammation

Minimal

* Trachea

Inflammation

Chronic Active, Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 46

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406214

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Harderian Gland
- * 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
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Testes
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular
- * Mammary Gland

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Eye
- Note: One optic nerve missing.
- * Heart Cardiomyopathy Minimal
- * Kidney Mineralization Mild
- Papilla Necrosis Mild
- Nephropathy Mild
- Pigmentation Mild
- * Liver Hematopoietic Cell Proliferation Minimal
- Hepatocyte Hypertrophy Mild
- Hepatocyte Necrosis Minimal
- Pigmentation Minimal
- * Lung Inflammation Chronic Active, Minimal
- * Nose Degeneration Moderate
- Olfactory Epi Hyperplasia Mild
- Glands Hyperplasia Mild
- Respirat Epith Metaplasia Squamous, Moderate
- Respirat Epith Metaplasia Moderate
- Olfactory Epi Infiltration Cellular Lymphocyte, Minimal
- * Pancreas

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 46

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406214

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Lymph Follic

Atrophy

Moderate

Congestion

Moderate

Capsule

Fibrosis

Moderate

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Mild

Pigmentation

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 47

TRT#: 9

SEX: Male

DAY ON TEST: 3

DOSE: 500 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406215

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Kidney
- * Pituitary Gland
- * Seminal Vesicle
- * Thyroid Gland
- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Preputial Gland
- * Skin
- * Trachea
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Prostate
- * Stomach, Glandular
- * Urinary Bladder
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Salivary Glands
- * Testes

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Mild
- * Epididymis
 - Note: Sperm were absent from the epididymides and a few exfoliated germinal cells were present. The testes appeared immature which would explain the absence of sperm
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Pigmentation Mild
- * Liver Centrilobular Fatty Change Minimal
Hepatocyte Hypertrophy Mild
Inflammation Chronic Active, Minimal
Centrilobular, Hepatocyte Necrosis Moderate
 - [Necrosis TGLs = 2-6+7]
- * Lung Inflammation Chronic Active, Minimal
- * Lymph Node, Mesenteric Atrophy Mild
- * Nose Degeneration Marked
- * Spleen Atrophy Marked
Atrophy Mild
- * Stomach, Forestomach Inflammation Minimal
Mineralization Minimal
Ulcer Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 47

TRT#: 9

SEX: Male

DAY ON TEST: 3

DOSE: 500 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406215

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes

Note: The testes lacked spermatids and this was attributed to an immature animal.

* Thymus

Thymocyte

Necrosis

Moderate

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 48

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406216

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Harderian Gland
- * 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
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Preputial Gland
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Glandular
- * Testes
- * Thymus
- * Thyroid Gland
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow
 - Hyperplasia
 - Moderate
- * Kidney
 - Papilla
 - Mineralization
 - Mild
 - Necrosis
 - Mild
 - Nephropathy
 - Minimal
 - Pigmentation
 - Mild
 - Basophilic Focus
 - Hematopoietic Cell Proliferation
 - Minimal
 - Bile Duct
 - Hyperplasia
 - Minimal
 - Hepatocyte
 - Hypertrophy
 - Minimal
 - Inflammation
 - Chronic Active, Minimal
 - Pigmentation
 - Minimal
- * Lung
 - Inflammation
 - Chronic Active, Minimal
- * Nose
 - Olfactory Epi
 - Degeneration
 - Moderate
 - Glands
 - Hyperplasia
 - Mild
 - Respirat Epith
 - Hyperplasia
 - Mild
 - Respirat Epith
 - Metaplasia
 - Squamous, Moderate
 - Olfactory Epi
 - Metaplasia
 - Moderate
- * Prostate
 - Epithelium
 - Hyperplasia
 - Minimal
 - Inflammation
 - Chronic Active, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 48

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406216

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|--------------|----------------------------------|-------------------------|
| * Spleen | Lymph Follic | Atrophy | Mild |
| | | Congestion | Moderate |
| | Capsule | Fibrosis | Moderate |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Mild |
| | | Pigmentation | Mild |
| [Congestion TGLs = 1-5] | | | |
| * Stomach, Forestomach | | Hyperplasia | Squamous, Moderate |
| | | Inflammation | Mild |
| * Trachea | | Inflammation | Chronic Active, Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 49

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406217

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Glandular
- * Testes
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular
- * Mammary Gland

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Heart Cardiomyopathy Minimal
- * Kidney
 - Renal Tubule Dilatation Mild
 - Mineralization Moderate
 - Papilla Necrosis Marked
 - Nephropathy Moderate
 - Pigmentation Mild
- * Liver
 - Hepatocyte Hypertrophy Mild
 - Inflammation Chronic Active, Minimal
 - Hepatocyte Necrosis Minimal
 - Pigmentation Minimal
- * Lung Inflammation Chronic Active, Minimal
- * Lymph Node, Mesenteric Atrophy Mild
- * Nose
 - Olfactory Epi Degeneration Moderate
 - Glands Hyperplasia Mild
 - Respirat Epith Hyperplasia Minimal
 - Respirat Epith Metaplasia Squamous, Moderate
 - Olfactory Epi Metaplasia Moderate
- * Pancreas Infiltration Cellular Lymphocyte, Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 49

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406217

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------------------|--------------|----------------------------------|-------------------|
| * Spleen | Lymph Follic | Atrophy | Mild |
| | | Congestion | Moderate |
| | Capsule | Fibrosis | Mild |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Mild |
| * Stomach, Forestomach | | Hyperplasia | Squamous, Minimal |
| | | Inflammation | Mild |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 50

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406218

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Pancreas
- * Pituitary Gland
- * Preputial Gland
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Urinary Bladder

MISSING

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

OBSERVATIONS

- * Bone Marrow
- Hyperplasia
- Moderate
- * Eye
- Note: One optic nerve missing.
- * Heart
- Cardiomyopathy
- Minimal
- * Kidney
- Mineralization
- Mild
- Papilla
- Necrosis
- Mild
- Nephropathy
- Mild
- Pigmentation
- Mild
- * Liver
- Hematopoietic Cell Proliferation
- Minimal
- Hepatocyte
- Hypertrophy
- Minimal
- Inflammation
- Chronic Active, Minimal
- Hepatocyte
- Necrosis
- Minimal
- Pigmentation
- Minimal
- * Lung
- Inflammation
- Chronic Active, Minimal
- * Lymph Node, Mesenteric
- Atrophy
- Minimal
- * Nose
- Olfactory Epi
- Degeneration
- Moderate
- Glands
- Hyperplasia
- Mild
- Respirat Epith
- Hyperplasia
- Mild
- Respirat Epith
- Metaplasia
- Squamous, Moderate
- Olfactory Epi
- Metaplasia
- Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 50

TRT#: 9

SEX: Male

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406218

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|------------|---------------------------|----------------------------------|----------------------|
| * Prostate | Epithelium | Hyperplasia | Minimal |
| * Spleen | Lymph Follic | Atrophy | Mild |
| | | Congestion | Moderate |
| | Capsule | Fibrosis | Mild |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Mild |
| | | Pigmentation | Mild |
| | [Congestion TGLs = 1-5] | | |
| * Testes | | Atrophy | Minimal |
| * Trachea | | Inflammation | Chronic Active, Mild |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 51

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406219

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Brain | * Epididymis | * Esophagus | * Eye |
| * Harderian Gland | * Heart | * Intestine Large, Cecum | * Intestine Large, Colon |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Mammary Gland | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Preputial Gland | * Prostate | * Salivary Glands |
| * Seminal Vesicle | * Skin | * Stomach, Glandular | * Testes |
| * Thyroid Gland | * Trachea | | |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|---|---------------------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Kidney | Papilla | Necrosis | Minimal |
| | | Nephropathy | Minimal |
| * Liver | Hepatocyte | Hypertrophy | Mild |
| | Centrilobular, Hepatocyte | Necrosis | Moderate |
| Note: Some of the discoloration noted in TGL 2 and 3 was due to autolysis. [Necrosis TGLs = 2,3-6+7] | | | |
| * Lung | | Inflammation | Chronic Active, Minimal |
| Note: Vessels in unscheduled death rats, particularly in the lung and liver, contained fibrin-like material that was interpreted to be clots and not thrombi. | | | |
| * Lymph Node, Mesenteric | | Atrophy | Mild |
| * Nose | Olfactory Epi | Degeneration | Marked |
| | Respirat Epith | Hyperplasia | Mild |
| * Spleen | Red Pulp | Atrophy | Mild |
| | Lymph Follic | Atrophy | Marked |
| | | Hematopoietic Cell Proliferation | Minimal |
| [Atrophy TGLs = 4-5] | | | |
| [Atrophy TGLs = 4-5] | | | |
| * Stomach, Forestomach | | Inflammation | Moderate |
| | | Ulcer | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 51

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406219

ORGAN AND ACCOUNTABLE SITE STATUS

* Thymus

Thymocyte

Hemorrhage

Mild

Necrosis

Moderate

* Urinary Bladder

Hemorrhage

Minimal

[Hemorrhage TGLs = 1-5]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 52

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406220

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Preputial Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Adrenal Medulla
- * Epididymis
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Prostate
- * Testes
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Pancreas
- * Salivary Glands
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Skin
- * Trachea

MISSING

- * Lymph Node, Mandibular
- * Parathyroid Gland
- * Seminal Vesicle

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Epididymis
 - Note: The absence of sperm was the result of immature testes.
- * Harderian Gland Pigmentation Mild
 - Note: Artifactual changes affected the eyes.
- * Kidney Nephropathy Minimal
- * Liver Hepatocyte Hypertrophy Mild
 - Centrilobular, Hepatocyte Necrosis Moderate
 - [Necrosis TGLs = 1-6]
- * Lung Inflammation Chronic Active, Minimal
- * Nose Degeneration Marked
 - Olfactory Epi Hyperplasia Mild
 - Respirat Epith
- * Spleen Atrophy Moderate
 - Red Pulp Atrophy Marked
 - Lymph Follic Hematopoietic Cell Proliferation Minimal
- * Stomach, Forestomach Inflammation Mild
 - Ulcer Mild
- * Thymus Hemorrhage Mild
 - Thymocyte Necrosis Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 52

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406220

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 53

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406221

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Mammary Gland
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Glandular
- * Testes
- * Thyroid Gland
- * Trachea

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Epididymis
 - Note: Sperm were not present in the epididymides and this was attributed to immaturity.
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Pigmentation Mild
- * Kidney Dilatation Minimal
 - Renal Tubule Hemorrhage Mild
 - Papilla Necrosis Mild
- * Liver Hypertrophy Mild
 - [Hemorrhage TGLs = 2-14] Necrosis Moderate
 - [Necrosis TGLs = 1-6+7]
- * Lung Inflammation Chronic Active, Minimal
 - Thrombosis Mild
- * Lymph Node, Mesenteric Atrophy Mild
- * Nose Degeneration Marked
 - Olfactory Epi Hyperplasia Mild
 - Respirat Epith Atrophy Mild
- * Spleen Atrophy Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 53

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406221

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|--------------|----------------------------------|----------|
| | Lymph Follic | Atrophy | Marked |
| | | Hematopoietic Cell Proliferation | Minimal |
| [Atrophy TGLs = 3-5] | | | |
| [Atrophy TGLs = 3-5] | | | |
| * Stomach, Forestomach | | Inflammation | Moderate |
| | | Ulcer | Mild |
| * Thymus | | Hemorrhage | Moderate |
| | Thymocyte | Necrosis | Moderate |
| * Urinary Bladder | | Hemorrhage | Moderate |
| [Hemorrhage TGLs = 4-5] | | | |

PRIMARY CAUSE OF DEATH - UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 54

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406222

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Kidney
- * Mammary Gland
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Glandular
- * Testes
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Mild
- * Epididymis
 - Note: Sperm were absent from the epididymides and this was attributed to immaturity of the testes.
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Pigmentation Mild
- * Liver Hypertrophy Mild
 - Hepatocyte Necrosis Mild
 - Centrilobular, Hepatocyte
- [Necrosis TGLs = 1-14]
- * Lung Inflammation Chronic Active, Minimal
- * Lymph Node, Mesenteric Atrophy Mild
- * Nose Degeneration Marked
- * Spleen Atrophy Moderate
 - Red Pulp Atrophy Moderate
 - Lymph Follic Hematopoietic Cell Proliferation Minimal
- * Stomach, Forestomach Inflammation Mild
 - Ulcer Mild
- * Thymus Hemorrhage Mild
 - Thymocyte Necrosis Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 54

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406222

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 55

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406223

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Mammary Gland
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Glandular
- * Testes
- * Thyroid Gland
- * Trachea

MISSING

- * Lymph Node, Mandibular
- * Urinary Bladder

OBSERVATIONS

- * Bone Marrow Hyperplasia Mild
- * Epididymis
 - Note: Sperm were absent from the epididymides and this was attributed to immature testes.
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Pigmentation Mild
- * Kidney Renal Tubule Dilatation Mild
- * Liver Centrilobular Fatty Change Minimal
 - Hepatocyte Hypertrophy Mild
 - Centrilobular, Hepatocyte Necrosis Moderate
- [Necrosis TGLs = 1-6+7]
- * Lung Inflammation Chronic Active, Minimal
- * Lymph Node, Mesenteric Necrosis Lymphoid, Mild
- * Nose Olfactory Epi Degeneration Marked
 - Respirat Epith Hyperplasia Minimal
- * Spleen Red Pulp Atrophy Moderate
 - Lymph Follic Atrophy Marked
 - Hematopoietic Cell Proliferation Minimal
 - Inflammation Moderate
- * Stomach, Forestomach

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 55

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406223

ORGAN AND ACCOUNTABLE SITE STATUS

Mineralization

Minimal

Ulcer

Mild

Necrosis

Moderate

* Thymus

Thymocyte

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 56

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406224

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

- * Lymph Node, Mandibular
- * Pituitary Gland

OBSERVATIONS

- * Bone Marrow Hyperplasia Mild
- * Epididymis
- Note: The absence of sperm in the testes was attributed to immature testes.
- * Eye
- Note: One optic nerve missing.
- * Harderian Gland Pigmentation Mild
- * Kidney Hemorrhage Mild
- * Liver Hepatocyte Hypertrophy Mild
- Inflammation Chronic Active, Minimal
- Necrosis Moderate
- [Necrosis TGLs = 2-14]
- * Lung Inflammation Chronic Active, Minimal
- Thrombosis Minimal
- * Lymph Node, Mesenteric Atrophy Moderate
- * Nose Degeneration Marked
- * Spleen Red Pulp Atrophy Moderate
- Lymph Follic Atrophy Marked
- Hematopoietic Cell Proliferation Minimal
- [Atrophy TGLs = 1-5]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 56

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406224

ORGAN AND ACCOUNTABLE SITE STATUS

[Atrophy TGLs = 1-5]

* Stomach, Forestomach

Inflammation

Moderate

Ulcer

Mild

* Thymus

Hemorrhage

Moderate

Thymocyte

Necrosis

Moderate

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 57

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406225

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Mammary Gland
- * Pancreas
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Forestomach
- * Testes
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular
- * Parathyroid Gland

OBSERVATIONS

- * Bone Marrow Hyperplasia Minimal
- * Epididymis
 - Note: Sperm were absent from the epididymides and this was attributed to immature testes.
- * Harderian Gland Pigmentation Mild
- * Heart Cardiomyopathy Minimal
- * Kidney Renal Tubule Dilatation Minimal
- * Liver Centrilobular Fatty Change Minimal
 - Hepatocyte Hypertrophy Mild
 - Centrilobular, Hepatocyte Necrosis Moderate
- [Necrosis TGLs = 1-6+7]
- * Lung Inflammation Chronic Active, Minimal
- * Lymph Node, Mesenteric Necrosis Lymphoid, Mild
- * Nose Degeneration Marked
 - Olfactory Epi Metaplasia Squamous, Mild
 - Respirat Epith Atrophy Moderate
 - * Spleen Lymph Follic Atrophy Moderate
 - Red Pulp Hematopoietic Cell Proliferation Minimal
 - * Stomach, Glandular Ulcer Mild
 - * Thymus Thymocyte Necrosis Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 58

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406226

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Kidney
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Pancreas
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Glandular
- * Testes
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular
- * Parathyroid Gland

OBSERVATIONS

- * Bone Marrow Hyperplasia Minimal
- * Epididymis
 - Note: The absence of sperm in the epididymides was attributed to immature testes.
- * Eye
 - Note: Both optic nerves missing.
- * Harderian Gland Pigmentation Mild
- * Liver Hepatocyte Hypertrophy Mild
 - Inflammation Chronic Active, Minimal
 - Centrilobular, Hepatocyte Necrosis Moderate
- [Necrosis TGLs = 2-6+7]
- * Lung Inflammation Chronic Active, Minimal
- * Nose Degeneration Marked
 - Hyperplasia Mild
 - Atrophy Mild
 - Atrophy Moderate
 - Hematopoietic Cell Proliferation Minimal
- [Atrophy TGLs = 1-5]
- [Atrophy TGLs = 1-5]
- * Stomach, Forestomach Hemorrhage Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 58

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406226

ORGAN AND ACCOUNTABLE SITE STATUS

Inflammation

Moderate

Ulcer

Mild

Necrosis

Moderate

* Thymus

Thymocyte

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 59

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406227

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Kidney
- * Mammary Gland
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Seminal Vesicle
- * Skin
- * Stomach, Glandular
- * Testes
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Minimal
- * Epididymis Pigmentation Mild
 - Note: Absence of sperm in the epididymides was attributed to immature testes.
- * Harderian Gland Hypertrophy Minimal
- * Liver Necrosis Moderate
 - [Necrosis TGLs = 1-6+14]
- * Lung Inflammation Chronic Active, Minimal
- * Lymph Node, Mesenteric Atrophy Minimal
- * Nose Degeneration Marked
- * Spleen Hyperplasia Mild
 - Respirat Epith
 - Red Pulp
 - Lymph Follic
 - Atrophy
 - Atrophy
 - Hematopoietic Cell Proliferation
 - Inflammation
 - Minimal
 - Hemorrhage
 - Mild
 - Necrosis
 - Moderate
- * Stomach, Forestomach Thymocyte Moderate
- * Thymus Necrosis Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 60

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406228

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Epididymis
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Mammary Gland
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Preputial Gland
- * Prostate
- * Salivary Glands
- * Skin
- * Stomach, Glandular
- * Testes
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular
- * Seminal Vesicle

OBSERVATIONS

- * Bone Marrow Hyperplasia Minimal
- * Epididymis
 - Note: Sperm were absent from the epididymides and this was attributed to immature testes.
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Pigmentation Mild
- * Kidney Nephropathy Minimal
- * Liver Hepatocyte Hypertrophy Minimal
 - Centrilobular, Hepatocyte Necrosis Moderate
 - [Necrosis TGLs = 1,2-14]
- * Lung Inflammation Chronic Active, Minimal
- * Lymph Node, Mesenteric Atrophy Moderate
- * Nose Degeneration Marked
 - Olfactory Epi Hyperplasia Mild
 - Respirat Epith Atrophy Moderate
 - Red Pulp Atrophy Marked
 - Lymph Follic Inflammation Mild
 - * Stomach, Forestomach Hemorrhage Mild
 - * Thymus Necrosis Marked
 - Thymocyte

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 60

TRT#: 11

SEX: Male

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Natural Death

HISTO: 0406228

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 61

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406229

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, Mesenteric | * Mammary Gland | * Nose |
| * Ovary | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|--|--------------|----------------------------------|-------------------------|
| * Eye | Retina | Degeneration | Marked |
| | Cornea | Inflammation | Mild |
| | Ciliary Body | Inflammation | Mild |
| Note: The eye lesions affected only one eye. | | | |
| * Harderian Gland | | Inflammation | Mild |
| | | Pigmentation | Mild |
| * Kidney | | Mineralization | Minimal |
| * Liver | | Inflammation | Chronic Active, Minimal |
| * Pancreas | | Infiltration Cellular | Lymphocyte, Moderate |
| * Spleen | | Hematopoietic Cell Proliferation | Minimal |
| | | Pigmentation | Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 62

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406230

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Bone Marrow | * Brain | * Clitoral Gland | * Esophagus |
| * Eye | * 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 | * Ovary |
| * Pancreas | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|-------------------|--------------------------------|----------------------------------|-------------------------|
| * Eye | | | |
| | Note: One optic nerve missing. | | |
| * Harderian Gland | | Inflammation | Marked |
| | | Pigmentation | Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | Hepatocyte | Necrosis | Minimal |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Spleen | | Hematopoietic Cell Proliferation | Minimal |
| | | Pigmentation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 63

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406231

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Bone Marrow | * Brain | * Clitoral Gland | * Esophagus |
| * Eye | * 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 | * Ovary |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Urinary Bladder | * Uterus | |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | |
|--------------------------------|----------------------------------|-------------------------|
| * Eye | | |
| Note: One optic nerve missing. | | |
| * Harderian Gland | Pigmentation | Mild |
| * Heart | Cardiomyopathy | Minimal |
| * Kidney | Mineralization | Minimal |
| * Liver | Inflammation | Chronic Active, Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |
| * Pancreas | Infiltration Cellular | Lymphocyte, Mild |
| * Spleen | Hematopoietic Cell Proliferation | Minimal |
| | Pigmentation | Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 64

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406232

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Bone Marrow | * Brain | * Clitoral Gland | * Esophagus |
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| Lacrimal Gland | * Lung | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Stomach, Forestomach |
| * Stomach, Glandular | * Thymus | * Thyroid Gland | * Trachea |
| * Urinary Bladder | * Uterus | | |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Eye
 - Note: No optic nerves present.
- * Harderian Gland

| | |
|----------------|---------|
| Mineralization | Minimal |
| Pigmentation | Mild |
| Inflammation | Mild |
- * Heart

| | |
|----------------|---------|
| Mineralization | Minimal |
|----------------|---------|
- * Kidney

| | |
|----------------------------------|-------------------------|
| Hematopoietic Cell Proliferation | Minimal |
| Inflammation | Chronic Active, Minimal |
- * Liver

| | |
|----------------------------------|---------|
| Hematopoietic Cell Proliferation | Minimal |
| Pigmentation | Minimal |
- * Spleen

| | |
|----------------------------------|---------|
| Hematopoietic Cell Proliferation | Minimal |
| Pigmentation | Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 65

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406233

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 Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Ovary | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | |
|-------------------|----------------------------------|-------------------------|
| * Harderian Gland | Pigmentation | Moderate |
| * Kidney | Mineralization | Minimal |
| * Liver | Inflammation | Chronic Active, Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |
| * Spleen | Hematopoietic Cell Proliferation | Minimal |
| | Pigmentation | Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 66

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406234

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 | * Lymph Node, Mesenteric | * Mammary Gland |
| * Nose | * Ovary | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|---|--------|----------------------------------|-------------------------|
| * Clitoral Gland | | Inflammation | Minimal |
| * Eye | Retina | Atrophy | Mild |
| Note: One optic nerve missing. There was atrophy of the ganglion cell layer and inner nuclear cell area in one eye. | | | |
| * Harderian Gland | | Pigmentation | Minimal |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Pancreas | | Infiltration Cellular | Lymphocyte, Minimal |
| * Spleen | | Hematopoietic Cell Proliferation | Minimal |
| | | Pigmentation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 67

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406235

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Eye
- * 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
- * Ovary
- * Parathyroid Gland
- * Pituitary Gland
- * Salivary Glands
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder
- * Uterus

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|----------------------------------|------------|----------------------------------|-------------------------|
| * Esophagus | Muscularis | Inflammation | Minimal |
| * Eye | | | |
| Note: Both optic nerves missing. | | | |
| * Harderian Gland | | Inflammation | Moderate |
| | | Pigmentation | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Minimal |
| | | Nephropathy | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Pancreas | | Infiltration Cellular | Lymphocyte, Mild |
| * Spleen | | Hematopoietic Cell Proliferation | Minimal |
| | | Pigmentation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 68

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406236

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Bone Marrow | * Brain | * Esophagus | * Eye |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Liver |
| * Lymph Node, Mesenteric | * Mammary Gland | * Nose | * Ovary |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Skin |
| * Stomach, Forestomach | * Stomach, Glandular | * Thymus | * Thyroid Gland |
| * Trachea | * Uterus | | |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | |
|-------------------|----------------------------------|-------------------------|
| * Clitoral Gland | Inflammation | Minimal |
| * Harderian Gland | Pigmentation | Moderate |
| * Heart | Cardiomyopathy | Minimal |
| * Kidney | Mineralization | Minimal |
| | Nephropathy | Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |
| * Pancreas | Infiltration Cellular | Lymphocyte, Minimal |
| * Spleen | Hematopoietic Cell Proliferation | Minimal |
| | Pigmentation | Minimal |
| * Urinary Bladder | Inflammation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 69

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406237

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Bone Marrow
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Liver
- * Lymph Node, Mesenteric
- * Mammary Gland
- * Nose
- * Ovary
- * Pituitary Gland
- * Salivary Glands
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular
- * Parathyroid Gland

OBSERVATIONS

- * Harderian Gland
- * Heart
- * Kidney
- * Lung
- * Pancreas
- * Spleen
- * Uterus
- Endometrium
- Pigmentation
- Cardiomyopathy
- Mineralization
- Inflammation
- Infiltration Cellular
- Hematopoietic Cell Proliferation
- Pigmentation
- Hyperplasia
- Mild
- Mild
- Minimal
- Chronic Active, Minimal
- Lymphocyte, Minimal
- Minimal
- Minimal
- Cystic, Moderate

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 70

TRT#: 2

SEX: Female

DAY ON TEST: 93

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406238

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Bone Marrow | * Brain | * Clitoral Gland | * Esophagus |
| * Eye | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Kidney | * Lymph Node, Mesenteric | * Mammary Gland | * Nose |
| * Ovary | * Parathyroid Gland | * Pituitary Gland | * Salivary Glands |
| * Skin | * Stomach, Forestomach | * Stomach, Glandular | * Thymus |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | |
|-------------------|----------------------------------|-------------------------|
| * Harderian Gland | Pigmentation | Minimal |
| * Heart | Cardiomyopathy | Minimal |
| * Liver | Hematopoietic Cell Proliferation | Minimal |
| | Inflammation | Chronic Active, Minimal |
| * Lung | Inflammation | Chronic Active, Minimal |
| * Pancreas | Infiltration Cellular | Lymphocyte, Mild |
| * Spleen | Hematopoietic Cell Proliferation | Minimal |
| | Pigmentation | Minimal |

Experiment Number: 20107 - 01
Test Type: 90-DAY
Route: GAVAGE
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 71

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406239

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Hyperplasia

Mild

Heart

Cardiomyopathy

Minimal

* Kidney

Mineralization

Minimal

Pigmentation

Minimal

* Liver

Hematopoietic Cell Proliferation

Minimal

Inflammation

Chronic Active, Minimal

Hepatocyte

Necrosis

Mild

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Minimal

Glands

Hyperplasia

Minimal

* Spleen

Congestion

Minimal

Capsule

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Minimal

Pigmentation

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 72

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406240

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------|--------|------------------------|------------------------|
| Heart | Lung | Lymph Node, Mesenteric | * Stomach, Forestomach |
| Stomach, Glandular | Thymus | Trachea | |

OBSERVATIONS

| | | | |
|---------------|---------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Kidney | | Mineralization | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | | Pigmentation | Minimal |
| * Nose | Olfactory Epi | Degeneration | Mild |
| * Spleen | Capsule | Fibrosis | Minimal |
| | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 73

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406241

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------|------------------------|---------|------------------------|
| Lung | Lymph Node, Mesenteric | * Nose | * Stomach, Forestomach |
| Stomach, Glandular | Thymus | Trachea | |

OBSERVATIONS

| | | | |
|---------------|------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | Hepatocyte | Hypertrophy | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | | Pigmentation | Minimal |
| * Spleen | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 74

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406242

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------|------------------------|------------------------|--------------------|
| Heart | Lymph Node, Mesenteric | * Stomach, Forestomach | Stomach, Glandular |
| Thymus | Trachea | | |

OBSERVATIONS

| | | | |
|---------------|---------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Kidney | | Mineralization | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Inflammation | Chronic Active, Minimal |
| | Hepatocyte | Necrosis | Minimal |
| | | Pigmentation | Minimal |
| Lung | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Minimal |
| * Spleen | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |

Experiment Number: 20107 - 01
Test Type: 90-DAY
Route: GAVAGE
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
N,N-Dimethyl-p-toluidine
CAS Number: 99-97-8

Date Report Requested: 09/07/2016
Time Report Requested: 11:43:16
First Dose M/F: 10/20/03 / 10/21/03
Lab: BAT

ANIMAL ID: 75

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406243

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow
Heart
* Kidney
* Liver

Hyperplasia
Cardiomyopathy
Pigmentation
Hematopoietic Cell Proliferation
Inflammation

Mild
Minimal
Minimal
Minimal
Chronic Active, Minimal

Hepatocyte

Necrosis
Pigmentation
Inflammation

Mild
Minimal
Chronic Active, Minimal

Lung
* Nose
* Spleen

Olfactory Epi

Degeneration
Hematopoietic Cell Proliferation
Pigmentation

Mild
Mild
Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 76

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406244

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart
Stomach, Glandular

Lymph Node, Mesenteric
Thymus

* Nose
Trachea

* Stomach, Forestomach

OBSERVATIONS

* Bone Marrow
* Kidney

Hyperplasia
Mineralization
Nephropathy
Pigmentation

Mild
Minimal
Minimal
Minimal

* Liver

Inflammation
Pigmentation

Chronic Active, Minimal
Minimal

Lung

Inflammation

Chronic Active, Minimal

* Spleen

Capsule

Fibrosis
Hematopoietic Cell Proliferation
Pigmentation

Minimal
Mild
Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 77

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406245

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------------------|--------|------------------------|------------------------|
| Heart | Lung | Lymph Node, Mesenteric | * Stomach, Forestomach |
| Stomach, Glandular | Thymus | Trachea | |

OBSERVATIONS

| | | | |
|---------------|---------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Kidney | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | Hepatocyte | Necrosis | Minimal |
| | | Pigmentation | Minimal |
| * Nose | Olfactory Epi | Degeneration | Minimal |
| | Glands | Hyperplasia | Minimal |
| * Spleen | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 78

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406246

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|------------------------|--------------------|------------------------|---------|
| Heart | Lung | Lymph Node, Mesenteric | * Nose |
| * Stomach, Forestomach | Stomach, Glandular | Thymus | Trachea |

OBSERVATIONS

| | | | |
|---------------|------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Minimal |
| * Kidney | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | Hepatocyte | Necrosis | Mild |
| | | Pigmentation | Minimal |
| * Spleen | | Hematopoietic Cell Proliferation | Minimal |
| | | Pigmentation | Mild |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 79

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406247

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------|------------------------|------------------------|--------------------|
| Lung | Lymph Node, Mesenteric | * Stomach, Forestomach | Stomach, Glandular |
| Thymus | Trachea | | |

OBSERVATIONS

| | | | |
|---------------|---------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Inflammation | Chronic Active, Minimal |
| | Hepatocyte | Necrosis | Minimal |
| | | Pigmentation | Minimal |
| * Nose | Olfactory Epi | Degeneration | Minimal |
| * Spleen | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |

Experiment Number: 20107 - 01
Test Type: 90-DAY
Route: GAVAGE
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
N,N-Dimethyl-p-toluidine
CAS Number: 99-97-8

Date Report Requested: 09/07/2016
Time Report Requested: 11:43:16
First Dose M/F: 10/20/03 / 10/21/03
Lab: BAT

ANIMAL ID: 80

TRT#: 4

SEX: Female

DAY ON TEST: 93

DOSE: 62.5 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406248

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------|------------------------|------------------------|--------------------|
| Heart | Lymph Node, Mesenteric | * Stomach, Forestomach | Stomach, Glandular |
| Thymus | Trachea | | |

OBSERVATIONS

| | | | |
|---------------|----------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Kidney | | Mineralization | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Inflammation | Chronic Active, Minimal |
| | | Pigmentation | Minimal |
| Lung | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Minimal |
| | Glands | Hyperplasia | Minimal |
| | Respirat Epith | Hyperplasia | Minimal |
| * Spleen | | Congestion | Minimal |
| | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 81

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406249

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------|------------------------|------------------------|--------------------|
| Lung | Lymph Node, Mesenteric | * Stomach, Forestomach | Stomach, Glandular |
| Thymus | Trachea | | |

OBSERVATIONS

| | | | |
|---------------|----------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Mild |
| | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | | Pigmentation | Minimal |
| * Nose | Olfactory Epi | Degeneration | Mild |
| | Glands | Hyperplasia | Minimal |
| | Respirat Epith | Hyperplasia | Minimal |
| | Respirat Epith | Metaplasia | Squamous, Mild |
| * Spleen | | Congestion | Minimal |
| | Capsule | Fibrosis | Minimal |
| | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 82

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406250

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Heart

* Kidney

* Liver

Lung

* Nose

* Spleen

Hepatocyte

Hepatocyte

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Capsule

Hyperplasia

Cardiomyopathy

Mineralization

Nephropathy

Pigmentation

Hypertrophy

Inflammation

Necrosis

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Pigmentation

Moderate

Minimal

Mild

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Minimal

Chronic Active, Minimal

Mild

Mild

Minimal

Squamous, Minimal

Mild

Mild

Mild

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 83

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406251

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Heart

* Kidney

Hyperplasia

Cardiomyopathy

Mineralization

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

* Liver

Hepatocyte

Hypertrophy

Inflammation

Minimal

Chronic Active, Minimal

Hepatocyte

Necrosis

Mild

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Mild

Respirat Epith

Hyperplasia

Minimal

Respirat Epith

Metaplasia

Squamous, Mild

* Spleen

Capsule

Congestion

Minimal

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 84

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406252

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------|------------------------|------------------------|--------------------|
| Heart | Lymph Node, Mesenteric | * Stomach, Forestomach | Stomach, Glandular |
| Thymus | Trachea | | |

OBSERVATIONS

| | | | |
|---------------|---------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Kidney | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | Hepatocyte | Necrosis | Mild |
| | | Pigmentation | Minimal |
| Lung | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| | Glands | Hyperplasia | Mild |
| * Spleen | | Congestion | Mild |
| | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 85

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406253

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------|------------------------|------------------------|--------------------|
| Lung | Lymph Node, Mesenteric | * Stomach, Forestomach | Stomach, Glandular |
| Thymus | Trachea | | |

OBSERVATIONS

| | | | |
|---------------|----------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Minimal |
| | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | Hepatocyte | Hypertrophy | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | Hepatocyte | Necrosis | Minimal |
| | | Pigmentation | Minimal |
| * Nose | Olfactory Epi | Degeneration | Mild |
| | Glands | Hyperplasia | Mild |
| | Respirat Epith | Hyperplasia | Mild |
| | Respirat Epith | Metaplasia | Squamous, Mild |
| * Spleen | | Congestion | Mild |
| | Capsule | Fibrosis | Minimal |
| | | Hematopoietic Cell Proliferation | Minimal |
| | | Pigmentation | Mild |

[Congestion TGLs = 1-5]

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 86

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406254

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Heart

* Kidney

* Liver

Lung

* Nose

* Spleen

Hepatocyte

Hepatocyte

Olfactory Epi

Glands

Respirat Epith

Capsule

Mesothelium

Hyperplasia

Cardiomyopathy

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Inflammation

Necrosis

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Mild

Minimal

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Minimal

Chronic Active, Minimal

Mild

Mild

Minimal

Minimal

Mild

Mild

Mild

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 87

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406255

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Hyperplasia

Moderate

Heart

Cardiomyopathy

Minimal

* Kidney

Nephropathy

Minimal

* Liver

Pigmentation

Minimal

Hematopoietic Cell Proliferation

Minimal

Hepatocyte

Hypertrophy

Minimal

Inflammation

Chronic Active, Minimal

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Mild

Glands

Hyperplasia

Minimal

Respirat Epith

Hyperplasia

Minimal

Respirat Epith

Metaplasia

Squamous, Minimal

* Spleen

Congestion

Minimal

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

Experiment Number: 20107 - 01
Test Type: 90-DAY
Route: GAVAGE
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
N,N-Dimethyl-p-toluidine
CAS Number: 99-97-8

Date Report Requested: 09/07/2016
Time Report Requested: 11:43:16
First Dose M/F: 10/20/03 / 10/21/03
Lab: BAT

ANIMAL ID: 88

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406256

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart
Thymus

Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

OBSERVATIONS

* Bone Marrow
* Kidney

Hyperplasia
Mineralization
Nephropathy
Pigmentation

Mild
Minimal
Minimal
Minimal

* Liver

Hepatocyte

Hematopoietic Cell Proliferation
Hypertrophy
Inflammation
Pigmentation

Minimal
Minimal
Chronic Active, Minimal
Minimal

Lung

* Nose

Olfactory Epi
Glands
Respirat Epith

Inflammation
Degeneration
Hyperplasia
Hyperplasia

Chronic Active, Minimal
Mild
Mild
Minimal

* Spleen

Congestion
Hematopoietic Cell Proliferation
Pigmentation

Minimal
Mild
Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 89

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406257

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Hyperplasia

Moderate

Heart

Cardiomyopathy

Minimal

* Kidney

Nephropathy

Minimal

* Liver

Pigmentation

Minimal

Hematopoietic Cell Proliferation

Minimal

Hepatocyte

Hypertrophy

Minimal

Inflammation

Chronic Active, Minimal

Pigmentation

Minimal

Lung

Inflammation

Chronic Active, Minimal

* Nose

Olfactory Epi

Degeneration

Mild

Glands

Hyperplasia

Minimal

* Spleen

Congestion

Minimal

Capsule

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Minimal

Pigmentation

Mild

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 90

TRT#: 6

SEX: Female

DAY ON TEST: 93

DOSE: 125 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406258

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------|------------------------|------------------------|--------------------|
| Heart | Lymph Node, Mesenteric | * Stomach, Forestomach | Stomach, Glandular |
| Thymus | Trachea | | |

OBSERVATIONS

| | | | |
|---------------|----------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Kidney | | Mineralization | Minimal |
| | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Inflammation | Chronic Active, Minimal |
| | | Pigmentation | Minimal |
| Lung | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Mild |
| | Glands | Hyperplasia | Mild |
| | Respirat Epith | Metaplasia | Squamous, Minimal |
| * Spleen | | Congestion | Mild |
| | Capsule | Fibrosis | Minimal |
| | | Hematopoietic Cell Proliferation | Mild |
| | | Pigmentation | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 91

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406259

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Heart

* Kidney

Papilla

* Liver

Hepatocyte

Hepatocyte

Lung

* Nose

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

* Spleen

Capsule

Mesothelium

Hyperplasia

Cardiomyopathy

Mineralization

Necrosis

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Necrosis

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Mild

Minimal

Chronic Active, Minimal

Moderate

Mild

Mild

Squamous, Mild

Mild

Mild

Mild

Minimal

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 92

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406260

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------|--------------------------|------------------------|--------------------|
| Heart | * Lymph Node, Mesenteric | * Stomach, Forestomach | Stomach, Glandular |
| Thymus | Trachea | | |

OBSERVATIONS

| | | | |
|---------------|----------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Kidney | | Mineralization | Minimal |
| | Papilla | Necrosis | Mild |
| | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | Hepatocyte | Hypertrophy | Minimal |
| | Hepatocyte | Necrosis | Minimal |
| | | Pigmentation | Mild |
| Lung | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| | Glands | Hyperplasia | Minimal |
| | Respirat Epith | Hyperplasia | Mild |
| | Respirat Epith | Metaplasia | Squamous, Mild |
| | Olfactory Epi | Metaplasia | Mild |
| * Spleen | | Congestion | Moderate |
| | Capsule | Fibrosis | Mild |
| | | Hematopoietic Cell Proliferation | Moderate |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Mild |

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 93

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406261

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|--------|--------------------------|------------------------|--------------------|
| Heart | * Lymph Node, Mesenteric | * Stomach, Forestomach | Stomach, Glandular |
| Thymus | Trachea | | |

OBSERVATIONS

| | | | |
|---------------|------------------------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Kidney | Papilla | Necrosis | Mild |
| | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | | Hepatodiaphragmatic Nodule | |
| | Hepatocyte | Hypertrophy | Minimal |
| | Hepatocyte | Necrosis | Mild |
| | | Pigmentation | Mild |
| | [Hepatodiaphragmatic Nodule | | |
| Lung | TGLs = 2-13] | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| | Glands | Hyperplasia | Mild |
| | Respirat Epith | Hyperplasia | Mild |
| | Respirat Epith | Metaplasia | Squamous, Mild |
| | Olfactory Epi | Metaplasia | Minimal |
| * Spleen | | Congestion | Moderate |
| | Capsule | Fibrosis | Moderate |
| | | Hematopoietic Cell Proliferation | Moderate |
| | Mesothelium | Hypertrophy | Mild |
| | | Pigmentation | Mild |
| | [Congestion | | |
| | TGLs = 1-5] | | |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 94

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406262

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Heart
Trachea

* Lymph Node, Mesenteric

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

* Kidney

Papilla

Hyperplasia

Mineralization

Necrosis

Nephropathy

Pigmentation

Inflammation

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Minimal

Mild

Minimal

Minimal

Chronic Active, Minimal

Mild

Chronic Active, Minimal

Moderate

Mild

Mild

Squamous, Mild

Minimal

Mild

Moderate

Mild

Minimal

Mild

* Liver

Lung

* Nose

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Olfactory Epi

* Spleen

Capsule

Mesothelium

[Congestion TGLs = 1-5]

* Stomach, Forestomach

Erosion

Inflammation

Mild

Moderate

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 95

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406263

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Heart

* Kidney

* Liver

Lung

* Nose

* Spleen

Hepatocyte

Hepatocyte

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Olfactory Epi

Capsule

Mesothelium

Hyperplasia

Cardiomyopathy

Mineralization

Nephropathy

Pigmentation

Angiectasis

Hematopoietic Cell Proliferation

Hypertrophy

Necrosis

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Mild

Chronic Active, Minimal

Moderate

Mild

Mild

Squamous, Mild

Minimal

Mild

Moderate

Mild

Minimal

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 96

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406264

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Heart

* Kidney

* Liver

Lung

* Nose

* Spleen

Hepatocyte

Olfactory Epi

Glands

Respirat Epith

Respirat Epith

Capsule

Mesothelium

Hyperplasia

Cardiomyopathy

Mineralization

Nephropathy

Pigmentation

Hematopoietic Cell Proliferation

Hypertrophy

Inflammation

Pigmentation

Inflammation

Degeneration

Hyperplasia

Hyperplasia

Metaplasia

Congestion

Fibrosis

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Mild

Chronic Active, Minimal

Moderate

Mild

Minimal

Squamous, Mild

Mild

Mild

Mild

Minimal

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 97

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406265

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------|--------------------------|--------------------|--------|
| Lung | * Lymph Node, Mesenteric | Stomach, Glandular | Thymus |
| Trachea | | | |

OBSERVATIONS

| | | | |
|------------------------|---------------------------|----------------------------------|--------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Mild |
| | Papilla | Necrosis | Minimal |
| | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | Hepatocyte | Hypertrophy | Minimal |
| | | Pigmentation | Mild |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| | Glands | Hyperplasia | Mild |
| | Respirat Epith | Hyperplasia | Minimal |
| | Respirat Epith | Metaplasia | Squamous, Moderate |
| | Olfactory Epi | Metaplasia | Mild |
| * Spleen | | Congestion | Mild |
| | Capsule | Fibrosis | Mild |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Mild |
| | [Congestion TGLs = 1-5] | | |
| * Stomach, Forestomach | | Inflammation | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 98

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406266

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric

Stomach, Glandular

Thymus

Trachea

OBSERVATIONS

* Bone Marrow

Heart

* Kidney

* Liver

Lung

* Nose

* Spleen

[Congestion TGLs = 1-5]

* Stomach, Forestomach

Hyperplasia

Cardiomyopathy

Mineralization

Papilla

Necrosis

Nephropathy

Pigmentation

Hepatocyte

Hypertrophy

Hepatocyte

Necrosis

Pigmentation

Olfactory Epi

Inflammation

Glands

Degeneration

Respirat Epith

Hyperplasia

Respirat Epith

Hyperplasia

Olfactory Epi

Metaplasia

Metaplasia

Capsule

Congestion

Fibrosis

Mesothelium

Hematopoietic Cell Proliferation

Hypertrophy

Pigmentation

Inflammation

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Minimal

Mild

Chronic Active, Minimal

Moderate

Mild

Minimal

Squamous, Mild

Mild

Moderate

Mild

Mild

Minimal

Mild

Minimal

Experiment Number: 20107 - 01
 Test Type: 90-DAY
 Route: GAVAGE
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
 N,N-Dimethyl-p-toluidine
 CAS Number: 99-97-8

Date Report Requested: 09/07/2016
 Time Report Requested: 11:43:16
 First Dose M/F: 10/20/03 / 10/21/03
 Lab: BAT

ANIMAL ID: 99

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406267

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

| | | | |
|---------|------------------------|--------------------|--------|
| Lung | * Stomach, Forestomach | Stomach, Glandular | Thymus |
| Trachea | | | |

OBSERVATIONS

| | | | |
|--------------------------|----------------|----------------------------------|----------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Mild |
| | Hepatocyte | Hypertrophy | Mild |
| | | Inflammation | Chronic Active, Mild |
| | Hepatocyte | Necrosis | Minimal |
| | | Pigmentation | Mild |
| * Lymph Node, Mesenteric | | Atrophy | Mild |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| | Glands | Hyperplasia | Mild |
| | Respirat Epith | Hyperplasia | Minimal |
| | Respirat Epith | Metaplasia | Squamous, Moderate |
| | Olfactory Epi | Metaplasia | Mild |
| * Spleen | | Congestion | Moderate |
| | Capsule | Fibrosis | Minimal |
| | | Hematopoietic Cell Proliferation | Moderate |
| | | Pigmentation | Mild |

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 100

TRT#: 8

SEX: Female

DAY ON TEST: 93

DOSE: 250 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406268

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Lymph Node, Mesenteric
Trachea

* Stomach, Forestomach

Stomach, Glandular

Thymus

OBSERVATIONS

* Bone Marrow

Heart

* Kidney

Hyperplasia

Cardiomyopathy

Mineralization

Nephropathy

Pigmentation

* Liver

Hepatocyte

Hypertrophy

Inflammation

Hepatocyte

Necrosis

Pigmentation

Lung

Inflammation

* Nose

Olfactory Epi

Degeneration

Glands

Hyperplasia

Respirat Epith

Hyperplasia

Respirat Epith

Metaplasia

* Spleen

Congestion

Capsule

Fibrosis

Hematopoietic Cell Proliferation

Mesothelium

Hypertrophy

Pigmentation

Moderate

Minimal

Minimal

Minimal

Minimal

Minimal

Chronic Active, Minimal

Minimal

Minimal

Chronic Active, Minimal

Moderate

Mild

Moderate

Squamous, Mild

Mild

Mild

Mild

Minimal

Minimal

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 101

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406269

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lung
- * Mammary Gland
- * Ovary
- * Parathyroid Gland
- * Pituitary Gland
- * Salivary Glands
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder
- * Uterus

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Pigmentation Minimal
- * Heart Cardiomyopathy Minimal
- * Kidney Mineralization Minimal
- Nephropathy Minimal
 - Pigmentation Moderate
- * Liver Hematopoietic Cell Proliferation Minimal
- Hepatocyte Hypertrophy Moderate
 - Hepatocyte Necrosis Minimal
 - Pigmentation Mild
 - Atrophy Mild
- * Lymph Node, Mesenteric Degeneration Moderate
- * Nose Hyperplasia Mild
- Olfactory Epi Hyperplasia Mild
 - Glands Metaplasia Squamous, Moderate
 - Respirat Epith Metaplasia Moderate
 - Respirat Epith Infiltration Cellular Lymphocyte, Minimal
 - Olfactory Epi
- * Pancreas

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 101

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406269

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Lymph Follic

Atrophy

Mild

Congestion

Moderate

Capsule

Fibrosis

Moderate

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Minimal

Pigmentation

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 102

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406270

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * 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
- * Ovary
- * Pituitary Gland
- * Salivary Glands
- * Skin
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder
- * Uterus

MISSING

- * Lymph Node, Mandibular
- * Parathyroid Gland

OBSERVATIONS

- * Bone Marrow
 - Hyperplasia
 - Moderate
- * Harderian Gland
 - Pigmentation
 - Minimal
- * Kidney
 - Nephropathy
 - Minimal
 - Pigmentation
 - Mild
- * Liver
 - Clear Cell Focus
 - Hematopoietic Cell Proliferation
 - Minimal
 - Hepatocyte
 - Hypertrophy
 - Moderate
 - Inflammation
 - Chronic Active, Minimal
 - Hepatocyte
 - Necrosis
 - Minimal
 - Pigmentation
 - Mild
 - Inflammation
 - Chronic Active, Minimal
- * Lung
 - Olfactory Epi
 - Degeneration
 - Moderate
 - Glands
 - Hyperplasia
 - Minimal
 - Respirat Epith
 - Hyperplasia
 - Minimal
 - Respirat Epith
 - Metaplasia
 - Squamous, Moderate
 - Olfactory Epi
 - Metaplasia
 - Moderate
- * Pancreas
 - Infiltration Cellular
 - Lymphocyte, Minimal
- * Spleen
 - Lymph Follic
 - Atrophy
 - Minimal
 - Congestion
 - Moderate
 - Capsule
 - Fibrosis
 - Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 102

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406270

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|-------------|----------------------------------|---------|
| | Mesothelium | Hematopoietic Cell Proliferation | Mild |
| | | Hypertrophy | Minimal |
| | | Pigmentation | Mild |
| [Congestion TGLs = 1-5] | | | |
| * Stomach, Forestomach | | Mineralization | Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 103

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406271

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Mammary Gland
- * Ovary
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Salivary Glands
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder
- * Uterus

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Eye Pigmentation Minimal

Note: One optic nerve missing.
- * Harderian Gland Cardiomyopathy Minimal
- * Heart Mineralization Minimal
- * Kidney Nephropathy Minimal
Pigmentation Minimal
Hematopoietic Cell Proliferation Minimal
Hepatodiaphragmatic Nodule
- * Liver Bile Duct Mild
Hepatocyte Hypertrophy Moderate
Inflammation Chronic Active, Mild
Pigmentation Mild
- [Hepatodiaphragmatic Nodule TGLs = 2-7] Inflammation Chronic Active, Minimal
- * Lung Atrophy Mild
- * Lymph Node, Mesenteric Degeneration Moderate
- * Nose Olfactory Epi Mild
Glands Hyperplasia

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 103

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406271

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|----------|----------------|----------------------------------|--------------------|
| * Spleen | Respirat Epith | Hyperplasia | Mild |
| | Respirat Epith | Metaplasia | Squamous, Moderate |
| | Olfactory Epi | Metaplasia | Moderate |
| | Lymph Follic | Atrophy | Minimal |
| | | Congestion | Moderate |
| | Capsule | Fibrosis | Mild |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Mild |

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 104

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406272

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Mammary Gland
- * Ovary
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Salivary Glands
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder
- * Uterus

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow
 - Hyperplasia
 - Moderate
- * Harderian Gland
 - Pigmentation
 - Minimal
- * Kidney
 - Mineralization
 - Minimal
 - Nephropathy
 - Minimal
 - Pigmentation
 - Minimal
- * Liver
 - Fatty Change
 - Focal, Mild
 - Hematopoietic Cell Proliferation
 - Minimal
 - Hepatocyte
 - Hypertrophy
 - Mild
 - Pigmentation
 - Mild
 - Inflammation
 - Chronic Active, Minimal
 - * Lung
 - Atrophy
 - Mild
 - * Lymph Node, Mesenteric
 - Degeneration
 - Moderate
 - * Nose
 - Olfactory Epi Glands
 - Hyperplasia
 - Mild
 - Respirat Epith
 - Hyperplasia
 - Minimal
 - Respirat Epith
 - Metaplasia
 - Squamous, Moderate
 - Olfactory Epi
 - Metaplasia
 - Moderate
 - * Spleen
 - Lymph Follic
 - Atrophy
 - Mild
 - Congestion
 - Moderate
 - Capsule
 - Fibrosis
 - Mild

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 104

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406272

ORGAN AND ACCOUNTABLE SITE STATUS

Mesothelium

Hematopoietic Cell Proliferation

Mild

Hypertrophy

Minimal

Pigmentation

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 105

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406273

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Esophagus
- * Eye
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lung
- * Mammary Gland
- * Ovary
- * Parathyroid Gland
- * Pituitary Gland
- * Salivary Glands
- * Skin
- * Stomach, Forestomach
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder
- * Uterus

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Clitoral Gland Inflammation Moderate
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Inflammation Mild
- * Heart Cardiomyopathy Minimal
- * Kidney Mineralization Minimal
- Nephropathy Mild
 - Pigmentation Mild
- * Liver Hematopoietic Cell Proliferation Minimal
- Hepatocyte
 - Hypertrophy Moderate
 - Inflammation Chronic Active, Minimal
 - Pigmentation Mild
- * Lymph Node, Mesenteric Atrophy Mild
- * Nose Degeneration Moderate
- Olfactory Epi
 - Glands Mild
 - Respirat Epith Mild
 - Respirat Epith Squamous, Mild
 - Olfactory Epi Mild
- * Pancreas Infiltration Cellular Lymphocyte, Minimal

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 105

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406273

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Lymph Follic

Atrophy

Minimal

Congestion

Moderate

Capsule

Fibrosis

Mild

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 106

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406274

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic | * Mammary Gland |
| * Ovary | * Pancreas | * Parathyroid Gland | * Pituitary Gland |
| * Salivary Glands | * Skin | * Stomach, Forestomach | * Stomach, Glandular |
| * Thymus | * Thyroid Gland | * Trachea | * Uterus |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|--------------------------|----------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Harderian Gland | | Pigmentation | Mild |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | | Mineralization | Minimal |
| | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | Hepatocyte | Hypertrophy | Moderate |
| | Hepatocyte | Necrosis | Minimal |
| | | Pigmentation | Mild |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Lymph Node, Mesenteric | | Atrophy | Moderate |
| * Nose | | Degeneration | Moderate |
| | Olfactory Epi | Hyperplasia | Mild |
| | Glands | Hyperplasia | Mild |
| | Respirat Epith | Hyperplasia | Mild |
| | Respirat Epith | Metaplasia | Squamous, Mild |
| | Olfactory Epi | Metaplasia | Moderate |
| * Spleen | Lymph Follic | Atrophy | Minimal |
| | | Congestion | Moderate |
| | Capsule | Fibrosis | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 106

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406274

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|-------------|----------------------------------|---------|
| | Mesothelium | Hematopoietic Cell Proliferation | Mild |
| | | Hypertrophy | Minimal |
| | | Pigmentation | Mild |
| [Congestion TGLs = 1-5] | | | |
| * Urinary Bladder | | Inflammation | Minimal |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 107

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406275

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Pituitary Gland
- * Stomach, Glandular
- * Urinary Bladder
- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Salivary Glands
- * Thymus
- * Uterus
- * Blood Vessel
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Stomach, Forestomach
- * Trachea

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Inflammation Mild
- * Heart Pigmentation Mild
- * Kidney Cardiomyopathy Minimal
- * Liver Mineralization Minimal
- Hepatocyte Nephropathy Minimal
- Hepatocyte Pigmentation Minimal
- Hepatocyte Hematopoietic Cell Proliferation Minimal
- Hepatocyte Hypertrophy Moderate
- Hepatocyte Necrosis Mild
- Hepatocyte Pigmentation Mild
- * Lung Inflammation Chronic Active, Minimal
- * Nose Degeneration Moderate
- Olfactory Epi Hyperplasia Mild
- Glands Hyperplasia Mild
- Respirat Epith Metaplasia Squamous, Moderate
- Respirat Epith Metaplasia Moderate
- Olfactory Epi Metaplasia Moderate

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 107

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406275

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen

Lymph Follic

Atrophy

Mild

Congestion

Moderate

Capsule

Fibrosis

Moderate

Hematopoietic Cell Proliferation

Mild

Mesothelium

Hypertrophy

Mild

Pigmentation

Mild

[Congestion TGLs = 1-5]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 108

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406276

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * Harderian Gland
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Mammary Gland
- * Ovary
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Salivary Glands
- * Skin
- * Stomach, Glandular
- * Thymus
- * Thyroid Gland
- * Trachea
- * Urinary Bladder
- * Uterus

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow
 - * Heart
 - * Kidney
 - * Liver
 - * Lung
 - * Lymph Node, Mesenteric
 - * Nose
 - * Spleen
- | | | |
|----------------------|----------------------------------|-------------------------|
| Papilla | Hyperplasia | Moderate |
| | Cardiomyopathy | Minimal |
| | Mineralization | Minimal |
| | Necrosis | Mild |
| | Nephropathy | Minimal |
| | Pigmentation | Mild |
| | Hematopoietic Cell Proliferation | Minimal |
| Hepatocyte | Hypertrophy | Moderate |
| | Inflammation | Chronic Active, Minimal |
| Hepatocyte | Necrosis | Minimal |
| | Pigmentation | Mild |
| | Inflammation | Chronic Active, Minimal |
| | Atrophy | Mild |
| Olfactory Epi Glands | Degeneration | Moderate |
| Respirat Epith | Hyperplasia | Minimal |
| Olfactory Epi | Hyperplasia | Minimal |
| Respirat Epith | Metaplasia | Moderate |
| Lymph Follic | Metaplasia | Squamous, Mild |
| | Atrophy | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 108

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406276

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|-------------|----------------------------------|----------|
| | Capsule | Congestion | Moderate |
| | | Fibrosis | Moderate |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Mild |
| [Congestion TGLs = 1-5] | | Inflammation | Moderate |
| * Stomach, Forestomach | | Ulcer | Mild |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 109

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406277

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Stomach, Glandular
- * Uterus
- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Salivary Glands
- * Thymus
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Skin
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Parathyroid Gland
- * Stomach, Forestomach
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|-------------------|---------------------------|-----------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Harderian Gland | | Pigmentation | Mild |
| * Kidney | Renal Tubule | Dilatation | Moderate |
| | | Mineralization | Mild |
| | Papilla | Necrosis | Moderate |
| | | Nephropathy | Moderate |
| | | Pigmentation | Mild |
| * Liver | | Clear Cell Focus | |
| | Hepatocyte | Hypertrophy | Mild |
| | Centrilobular, Hepatocyte | Necrosis | Mild |
| | | Pigmentation | Mild |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| | Glands | Hyperplasia | Mild |
| | Respirat Epith | Hyperplasia | Mild |
| | Respirat Epith | Metaplasia | Squamous, Moderate |
| | Olfactory Epi | Metaplasia | Moderate |
| * Pancreas | | Infiltration Cellular | Lymphocyte, Mild |
| * Spleen | Lymph Follic | Atrophy | Minimal |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 109

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406277

ORGAN AND ACCOUNTABLE SITE STATUS

| | | | |
|---------------------------|-------------|----------------------------------|------------------|
| | Capsule | Congestion | Moderate |
| | | Fibrosis | Moderate |
| | | Hematopoietic Cell Proliferation | Mild |
| | Mesothelium | Hypertrophy | Minimal |
| | | Pigmentation | Mild |
| [Congestion TGLs = 1-5] | | | |
| * Thyroid Gland | | Infiltration Cellular | Lymphocyte, Mild |

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 110

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406278

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Thymus
- * Uterus
- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Pituitary Gland
- * Thyroid Gland
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Salivary Glands
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|-------------------|----------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Harderian Gland | | Pigmentation | Minimal |
| * Kidney | | Nephropathy | Minimal |
| | | Pigmentation | Minimal |
| * Liver | | Hematopoietic Cell Proliferation | Minimal |
| | Hepatocyte | Hypertrophy | Mild |
| | | Inflammation | Chronic Active, Minimal |
| | Hepatocyte | Necrosis | Minimal |
| | | Pigmentation | Minimal |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Moderate |
| | Glands | Hyperplasia | Marked |
| | Respirat Epith | Hyperplasia | Mild |
| | Respirat Epith | Metaplasia | Squamous, Mild |
| | Olfactory Epi | Metaplasia | Moderate |
| * Spleen | Lymph Follic | Atrophy | Minimal |
| | | Congestion | Moderate |
| | Capsule | Fibrosis | Marked |
| | | Hematopoietic Cell Proliferation | Mild |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 110

TRT#: 10

SEX: Female

DAY ON TEST: 93

DOSE: 500 MG/KG

DISP: Terminal Sacrifice

HISTO: 0406278

ORGAN AND ACCOUNTABLE SITE STATUS

Mesothelium

Hypertrophy

Minimal

Pigmentation

Mild

[Congestion TGLs = 1-5]

* Stomach, Forestomach

Inflammation

Minimal

* Stomach, Glandular

Inflammation

Granulomatous, Moderate

Note: Granulomatous inflammation occurred with adhesions of the stomach to the liver. Foreign material was present indicating a perforation of the digestive tract.

[Inflammation TGLs = 2-13]

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 111

TRT#: 12

SEX: Female

DAY ON TEST: 2

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406279

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Lung | * Mammary Gland | * Ovary | * Pancreas |
| * Pituitary Gland | * Salivary Glands | * Skin | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

MISSING

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

OBSERVATIONS

- | | | | |
|--------------------------------|---------------------------|----------------------------------|-------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Eye | | | |
| Note: One optic nerve missing. | | | |
| * Harderian Gland | | Pigmentation | Moderate |
| * Kidney | Renal Tubule | Dilatation | Mild |
| * Liver | Centrilobular | Fatty Change | Minimal |
| | Hepatocyte | Hypertrophy | Mild |
| | Centrilobular, Hepatocyte | Necrosis | Mild |
| * Lymph Node, Mesenteric | | Necrosis | Lymphoid, Minimal |
| * Nose | Olfactory Epi | Degeneration | Marked |
| | Respirat Epith | Metaplasia | Squamous, Minimal |
| * Spleen | Lymph Follic | Atrophy | Moderate |
| | Red Pulp | Atrophy | Moderate |
| | | Hematopoietic Cell Proliferation | Minimal |
| * Stomach, Forestomach | | Inflammation | Mild |
| | | Mineralization | Mild |
| * Thymus | Thymocyte | Necrosis | Mild |

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 112

TRT#: 12

SEX: Female

DAY ON TEST: 2

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406280

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Harderian Gland
- * Intestine Small, Duodenum
- * Lung
- * Parathyroid Gland
- * Stomach, Glandular
- * Uterus
- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Pituitary Gland
- * Thyroid Gland
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Salivary Glands
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|--------------------------|---------------------------|----------------------------------|----------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Heart | | Cardiomyopathy | Minimal |
| * Kidney | Renal Tubule | Dilatation | Minimal |
| * Liver | Centrilobular | Fatty Change | Mild |
| | Hepatocyte | Hypertrophy | Minimal |
| | Centrilobular, Hepatocyte | Necrosis | Mild |
| * Lymph Node, Mesenteric | | Atrophy | Mild |
| * Nose | Olfactory Epi | Degeneration | Marked |
| * Spleen | Lymph Follic | Atrophy | Mild |
| | Red Pulp | Atrophy | Moderate |
| | | Hematopoietic Cell Proliferation | Minimal |
| * Stomach, Forestomach | | Inflammation | Moderate |
| | | Ulcer | Mild |
| * Thymus | Thymocyte | Necrosis | Moderate |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 113

TRT#: 12

SEX: Female

DAY ON TEST: 2

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406281

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lung
- * Pancreas
- * Skin
- * Urinary Bladder
- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Stomach, Glandular
- * Uterus
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Pituitary Gland
- * Thyroid Gland
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Ovary
- * Salivary Glands
- * Trachea

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Pigmentation Mild
- * Kidney Renal Tubule Dilatation Minimal
- * Liver Centrilobular Fatty Change Minimal
- Hepatocyte Hypertrophy Minimal
- * Nose Olfactory Epi Degeneration Marked
- Respirat Epith Metaplasia Squamous, Minimal
- * Spleen Lymph Follic Atrophy Mild
- Red Pulp Atrophy Moderate
- Hematopoietic Cell Proliferation Minimal
- * Stomach, Forestomach Inflammation Mild
- Mineralization Minimal
- Ulcer Mild
- * Thymus Thymocyte Necrosis Mild

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 114

TRT#: 12

SEX: Female

DAY ON TEST: 2

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406282

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * 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 | * Ovary | * Pancreas |
| * Parathyroid Gland | * Pituitary Gland | * Salivary Glands | * Skin |
| * Stomach, Glandular | * Thyroid Gland | * Trachea | * Urinary Bladder |
| * Uterus | | | |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|--------------------------------|---------------------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Moderate |
| * Eye | | | |
| Note: One optic nerve missing. | | | |
| * Harderian Gland | | Pigmentation | Mild |
| * Kidney | Renal Tubule | Dilatation | Minimal |
| * Liver | Centrilobular | Fatty Change | Minimal |
| | Hepatocyte | Hypertrophy | Minimal |
| | Centrilobular, Hepatocyte | Necrosis | Mild |
| * Lung | Alveolus | Infiltration Cellular | Histiocyte, Minimal |
| | | Inflammation | Chronic Active, Minimal |
| * Nose | Olfactory Epi | Degeneration | Marked |
| | Respirat Epith | Metaplasia | Squamous, Minimal |
| * Spleen | Red Pulp | Atrophy | Moderate |
| | Lymph Follic | Atrophy | Minimal |
| | | Hematopoietic Cell Proliferation | Minimal |
| * Stomach, Forestomach | | Inflammation | Mild |
| | | Mineralization | Minimal |
| | | Ulcer | Minimal |
| * Thymus | Thymocyte | Necrosis | Moderate |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 114

TRT#: 12

SEX: Female

DAY ON TEST: 2

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406282

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 115

TRT#: 12

SEX: Female

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406283

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lymph Node, Mesenteric
- * Parathyroid Gland
- * Stomach, Glandular
- * Uterus
- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Pituitary Gland
- * Thyroid Gland
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Salivary Glands
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Eye
 - Note: One optic nerve missing.
- * Harderian Gland Pigmentation Moderate
- * Kidney Renal Tubule Dilatation Minimal
- Papilla Necrosis Mild
- * Liver Centrilobular Fatty Change Minimal
- Hepatocyte Hypertrophy Minimal
- Hepatocyte Necrosis Mild
- * Lung Alveolus Infiltration Cellular Histiocyte, Minimal
- * Nose Olfactory Epi Degeneration Marked
- Respirat Epith Metaplasia Squamous, Minimal
- * Spleen Lymph Follic Atrophy Mild
- Red Pulp Atrophy Moderate
- Hematopoietic Cell Proliferation Minimal
- * Stomach, Forestomach Inflammation Mild
- Ulcer Mild
- * Thymus Thymocyte Necrosis Marked

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 116

TRT#: 12

SEX: Female

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406284

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Mammary Gland
- * Salivary Glands
- * Trachea
- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Ovary
- * Skin
- * Urinary Bladder
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Parathyroid Gland
- * Stomach, Glandular
- * Uterus
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pituitary Gland
- * Thyroid Gland

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|----------------------------------|---------------------------|----------------------------------|---------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Eye | | | |
| Note: Both optic nerves missing. | | | |
| * Harderian Gland | | Pigmentation | Moderate |
| * Kidney | Renal Tubule | Dilatation | Minimal |
| * Liver | Centrilobular | Fatty Change | Minimal |
| | | Hematopoietic Cell Proliferation | Minimal |
| | Hepatocyte | Hypertrophy | Minimal |
| | Centrilobular, Hepatocyte | Necrosis | Mild |
| * Lung | | Hemorrhage | Mild |
| * Lymph Node, Mesenteric | | Atrophy | Mild |
| * Nose | Olfactory Epi | Degeneration | Marked |
| | Respirat Epith | Metaplasia | Squamous, Minimal |
| * Pancreas | | Infiltration Cellular | Lymphocyte, Minimal |
| * Spleen | Lymph Follic | Atrophy | Mild |
| | Red Pulp | Atrophy | Moderate |
| * Stomach, Forestomach | | Inflammation | Mild |
| | | Ulcer | Moderate |
| * Thymus | | Hemorrhage | Mild |
| | Thymocyte | Necrosis | Marked |

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 116

TRT#: 12

SEX: Female

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406284

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 117

TRT#: 12

SEX: Female

DAY ON TEST: 2

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406285

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Mammary Gland
- * Salivary Glands
- * Urinary Bladder
- * Blood Vessel
- * Esophagus
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Ovary
- * Skin
- * Uterus
- * Bone
- * Eye
- * Intestine Small, Duodenum
- * Lung
- * Pancreas
- * Thyroid Gland
- * Brain
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Lymph Node, Mesenteric
- * Pituitary Gland
- * Trachea

MISSING

- * Lymph Node, Mandibular
- * Parathyroid Gland

OBSERVATIONS

- * Adrenal Cortex Hemorrhage Moderate
- * Bone Marrow Hyperplasia Mild
- * Eye
 Note: One optic nerve missing.
- * Harderian Gland Pigmentation Mild
- * Heart Cardiomyopathy Minimal
- * Kidney Renal Tubule
 Dilatation Mild
 Nephropathy Minimal
- * Liver Centrilobular
 Fatty Change Minimal
 Hepatocyte
 Hypertrophy Mild
 Hepatocyte
 Necrosis Mild
- * Nose Olfactory Epi
 Degeneration Marked
- * Spleen Lymph Follic
 Atrophy Mild
 Red Pulp
 Atrophy Moderate
 Hematopoietic Cell Proliferation Minimal
- * Stomach, Forestomach Inflammation Minimal
- * Stomach, Glandular Inflammation Mild
- * Thymus Thymocyte
 Ulcer Mild
 Necrosis Mild

PRIMARY CAUSE OF DEATH - UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 118

TRT#: 12

SEX: Female

DAY ON TEST: 2

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406286

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- | | | | |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Blood Vessel | * Bone |
| * Brain | * Clitoral Gland | * Esophagus | * Eye |
| * Heart | * Intestine Large, Cecum | * Intestine Large, Colon | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic |
| * Mammary Gland | * Ovary | * Pancreas | * Parathyroid Gland |
| * Pituitary Gland | * Salivary Glands | * Skin | * Stomach, Glandular |
| * Thyroid Gland | * Trachea | * Urinary Bladder | * Uterus |

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- | | | | |
|--------------------------------|---------------------------|----------------------------------|-------------------------|
| * Bone Marrow | | Hyperplasia | Mild |
| * Eye | | | |
| Note: One optic nerve missing. | | | |
| * Harderian Gland | | Pigmentation | Mild |
| * Kidney | Renal Tubule | Dilatation | Minimal |
| * Liver | Centrilobular | Fatty Change | Minimal |
| | Hepatocyte | Hypertrophy | Minimal |
| | Centrilobular, Hepatocyte | Necrosis | Minimal |
| * Lung | | Inflammation | Chronic Active, Minimal |
| * Lymph Node, Mesenteric | | Atrophy | Mild |
| * Nose | Olfactory Epi | Degeneration | Marked |
| | Respirat Epith | Metaplasia | Squamous, Minimal |
| * Spleen | Lymph Follic | Atrophy | Mild |
| | Red Pulp | Atrophy | Moderate |
| | | Hematopoietic Cell Proliferation | Minimal |
| * Stomach, Forestomach | | Inflammation | Moderate |
| | | Mineralization | Mild |
| | | Ulcer | Moderate |
| * Thymus | Thymocyte | Necrosis | Moderate |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 119

TRT#: 12

SEX: Female

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406287

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Adrenal Medulla
- * Blood Vessel
- * Bone
- * Brain
- * Clitoral Gland
- * Esophagus
- * Eye
- * Heart
- * Intestine Large, Cecum
- * Intestine Large, Colon
- * Intestine Large, Rectum
- * Intestine Small, Duodenum
- * Intestine Small, Ileum
- * Intestine Small, Jejunum
- * Islets, Pancreatic
- * Lung
- * Mammary Gland
- * Ovary
- * Pancreas
- * Parathyroid Gland
- * Pituitary Gland
- * Salivary Glands
- * Skin
- * Thyroid Gland
- * Trachea
- * Urinary Bladder
- * Uterus

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Eye
 - Note: Both optic nerves missing.
- * Harderian Gland Pigmentation Mild
- * Kidney Renal Tubule Dilatation Minimal
- * Liver Centrilobular Fatty Change Minimal
 - Hepatocyte Hypertrophy Mild
 - Centrilobular, Hepatocyte Necrosis Minimal
- * Lymph Node, Mesenteric Atrophy Moderate
- * Nose Olfactory Epi Degeneration Marked
 - Respirat Epith Hyperplasia Minimal
 - Respirat Epith Metaplasia Squamous, Mild
- * Spleen Lymph Follic Atrophy Minimal
 - Red Pulp Atrophy Moderate
 - Hematopoietic Cell Proliferation Minimal
 - Mesothelium Hypertrophy Minimal
- * Stomach, Forestomach Inflammation Moderate
 - Ulcer Mild
- * Stomach, Glandular Ulcer Mild
- * Thymus Thymocyte Necrosis Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 119

TRT#: 12

SEX: Female

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406287

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 120

TRT#: 12

SEX: Female

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406288

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- * Adrenal Cortex
- * Brain
- * Heart
- * Intestine Small, Duodenum
- * Lung
- * Parathyroid Gland
- * Stomach, Glandular
- * Uterus
- * Adrenal Medulla
- * Clitoral Gland
- * Intestine Large, Cecum
- * Intestine Small, Ileum
- * Mammary Gland
- * Pituitary Gland
- * Thyroid Gland
- * Blood Vessel
- * Esophagus
- * Intestine Large, Colon
- * Intestine Small, Jejunum
- * Ovary
- * Salivary Glands
- * Trachea
- * Bone
- * Eye
- * Intestine Large, Rectum
- * Islets, Pancreatic
- * Pancreas
- * Skin
- * Urinary Bladder

MISSING

- * Lymph Node, Mandibular

OBSERVATIONS

- * Bone Marrow Hyperplasia Moderate
- * Eye Pigmentation Mild
 - Note: One optic nerve missing.
- * Harderian Gland Dilatation Mild
- * Kidney Hypertrophy Mild
- * Liver Necrosis Moderate
 - [Necrosis TGLs = 3-6+7]
- * Lymph Node, Mesenteric Atrophy Mild
- * Nose Degeneration Marked
- * Spleen Atrophy Minimal
 - [Atrophy TGLs = 2-5]
 - [Atrophy TGLs = 2-5]
- * Stomach, Forestomach Atrophy Moderate
 - [Atrophy TGLs = 2-5]
- * Thymus Hematopoietic Cell Proliferation Minimal
- Inflammation Moderate
- Ulcer Mild
- Hemorrhage Minimal
- Necrosis Marked

* PROTOCOL REQUIRED TISSUE

Experiment Number: 20107 - 01

Test Type: 90-DAY

Route: GAVAGE

Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 09/07/2016

Time Report Requested: 11:43:16

First Dose M/F: 10/20/03 / 10/21/03

Lab: BAT

ANIMAL ID: 120

TRT#: 12

SEX: Female

DAY ON TEST: 3

DOSE: 1000 MG/KG

DISP: Moribund Sacrifice

HISTO: 0406288

ORGAN AND ACCOUNTABLE SITE STATUS

PRIMARY CAUSE OF DEATH

- UNCERTAIN

*** END OF REPORT ***