

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:11  
**First Dose M/F:** NA / NA  
**Lab:** BNW

<b>C Number:</b>	C55607B
<b>Lock Date:</b>	01/09/1992
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	04/23/1992

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13128

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Adrenal Medulla		Hyperplasia	Moderate
Kidney		Cyst	
		Nephropathy	Chronic, Moderate
[ Cyst TGLS = 2-11 ]			
Lung	Alveolus	Hemorrhage	Moderate
	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
Nose		Foreign Body	Moderate
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Prostate		Inflammation	Suppurative, Moderate
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-7 ]			
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

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<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 733
	<b>DOSE:</b> CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13129

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Parathyroid Gland	Pituitary Gland	Preputial Gland
Salivary Glands	Skin	Stomach, Forestomach	Stomach, Glandular
Thymus	Trachea	Urinary Bladder	

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**OBSERVATIONS**

Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Nose		Hemorrhage	Mild
Pancreas	Acinus	Atrophy	Minimal
Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Suppurative, Mild
Seminal Vesicle		Inflammation	Suppurative, Minimal
Spleen		Leukemia Mononuclear	
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-7 ]			
Thyroid Gland	C Cell	Hyperplasia	Minimal

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

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<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 1 <b>DOSE:</b> CONTROL	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 661 <b>HISTO:</b> 13130
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ORGAN AND ACCOUNTABLE SITE STATUS

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**NORMAL**

Bone	Brain	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Thyroid Gland	Trachea	Urinary Bladder	

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**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Mild
Adrenal Medulla	Bilateral	Hyperplasia	Mild
Bone Marrow		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
[ Leukemia Mononuclear TGLS = 4,7-5 ]			
Larynx		Inflammation	Suppurative, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6 ]			
Mesentery		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-12 ]			
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Prostate		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 3

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 661

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13130

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 3-11 ] Stomach, Forestomach		Leukemia Mononuclear
[ Leukemia Mononuclear TGLS = 9-8 ] Stomach, Glandular		Leukemia Mononuclear
[ Leukemia Mononuclear TGLS = 9-8 ] Testes	Bilateral, Interstit Cell	Adenoma
[ Adenoma TGLS = 8-7 ] Thymus		Leukemia Mononuclear
[ Leukemia Mononuclear TGLS = 6-2 ]		

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 1 <b>DOSE:</b> CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b> 13131
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
Lymph Node, Mediastinal		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[ Hyperplasia TGLS = 3-8 ]			
Testes	Interstitial Cell	Adenoma	
	Seminif Tub	Atrophy	Marked
	Interstitial Cell	Hyperplasia	Mild
[ Adenoma TGLS = 1-7 ]			

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 1 <b>DOSE:</b> CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 733 <b>HISTO:</b> 13132
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Larynx	Lung	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Salivary Glands
Seminal Vesicle	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Heart		Cardiomyopathy	Mild
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
[ Basophilic Focus TGLS = 6-12 ]			
Lymph Node, Bronchial		Hemorrhage	Marked
		Pigmentation	Marked
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Preputial Gland		Cyst	
		Inflammation	Suppurative, Mild
[ Cyst TGLS = 3-14 ]			
Prostate		Inflammation	Suppurative, Minimal
Skin		Acanthosis	Marked
		Hyperkeratosis	Marked
[ Hyperkeratosis TGLS = 4-11 ]			
Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Marked
[ Adenoma TGLS = 2-13 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:11  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 733
	<b>DOSE:</b> CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13132

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Atrophy TGLS = 1-7 ]

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PRIMARY CAUSE OF DEATH -

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

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<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 628
	<b>DOSE:</b> CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b> 13133

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Nose
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

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**OBSERVATIONS**

Adrenal Medulla	Bilateral	Hyperplasia Pheochromocytoma Benign	Moderate
Heart		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-3 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Preputial Gland		Cyst	
Prostate		Inflammation	Suppurative, Mild
Seminal Vesicle		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Testes	Interstitial Cell Seminif Tub	Adenoma Atrophy	Marked
[ Adenoma TGLS = 2-7 ]			
[ Atrophy TGLS = 3-7 ]			

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 6

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 628

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13133

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 733
	<b>DOSE:</b> CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13134

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Lymph Node, Mediastinal

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Angiectasis	Mild
		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Nose		Foreign Body	Mild
		Hemorrhage	Mild
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Leukemia Mononuclear	
Testes	Bilateral, Interstit Cell	Adenoma	
	Arteriole	Inflammation	Moderate

[ Adenoma TGLS = 1,2-7 ]

PRIMARY CAUSE OF DEATH -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 8

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13135

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Pancreas	Parathyroid Gland	Preputial Gland	Prostate
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Testes	Trachea	Urinary Bladder

**MISSING**

Lymph Node, Bronchial	Thymus
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**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Moderate
Lung	Alveolus	Hemorrhage	Mild
[ Hemorrhage TGLS = 1-3 ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Seminal Vesicle		Inflammation	Suppurative, Mild
Thyroid Gland		Ultimobranchial Cyst	

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 1 <b>DOSE:</b> CONTROL	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 698 <b>HISTO:</b> 13136
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ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Mammary Gland	Nose	Parathyroid Gland	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Nephropathy	Chronic, Moderate
Larynx		Foreign Body	Mild
		Inflammation	Suppurative, Minimal
Liver	Biliar Tract	Hyperplasia	Moderate
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Prostate	Epithelium	Hyperplasia	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 3-7 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 9

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 698

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13136

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 724

DOSE: CONTROL

DISP: Moribund

HISTO: 13137

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Epididymis	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Mammary Gland	Parathyroid Gland	Preputial Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
Adrenal Medulla		Leukemia Mononuclear	
Brain		Leukemia Mononuclear	
Heart		Pheochromocytoma Benign	
Kidney		Hemorrhage	Minimal
[ Nephropathy TGLS = 6-5 ]		Leukemia Mononuclear	
Liver		Nephropathy	Chronic, Marked
	Biliar Tract	Clear Cell Focus	
Note: CLEAR CELL FOCUS PROBLY RELATED TO MCL		Hyperplasia	Moderate
[ Leukemia Mononuclear TGLS = 5-4 ]		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Mild
Note: THIS IS PERI-EPIDIDYMAL FAT			
[ Necrosis TGLS = 2-13 ]			
Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Suppurative, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

**ANIMAL ID:** 10

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 724

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13137

**ORGAN AND ACCOUNTABLE SITE STATUS**

Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Prostate	Epithelium	Hyperplasia	Mild
Seminal Vesicle		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 3-7 ]			
Thymus		Leukemia Mononuclear	
Zymbal's Gland		Carcinoma	
Note: DIFF DX CA OF DUCT OF SAL GL,SKIN;NO CARTILAGE VISIBLE.			
[ Carcinoma TGLS = 1-12 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 11

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13138

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Lymph Node, Bronchial	Parathyroid Gland
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Larynx		Hyperplasia	Mild
		Inflammation	Chronic, Mild
Liver		Basophilic Focus	
Lung	Alveolus	Hemorrhage	Mild
[ Hemorrhage TGLS = 2-3 ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
Pancreas	Acinus	Atrophy	Mild
Seminal Vesicle		Inflammation	Suppurative, Mild
Testes	Interstit Cell	Adenoma	Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13139

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Kidney		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Chronic, Minimal
Liver		Basophilic Focus	
		Clear Cell Focus	
		Leukemia Mononuclear	
[ Clear Cell Focus TGLS = 5-4+11 ]			
Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Suppurative, Minimal
Preputial Gland		Carcinoma	
		Cyst	
[ Carcinoma TGLS = 1-12 ]			
[ Cyst TGLS = 1-7 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Testes	Interstitial Cell	Adenoma	
	Seminif Tub	Atrophy	Marked
	Arteriole	Inflammation	Marked
[ Adenoma TGLS = 3-7 ]			
[ Atrophy TGLS = 4-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 548

DOSE: CONTROL

DISP: Moribund

HISTO: 13140

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Cortex [ Adenoma TGLS = 4-5 ]		Adenoma	
Kidney		Nephropathy	Chronic, Mild
Nose		Hemorrhage	Mild
Preputial Gland		Hyperplasia	Marked
		Inflammation	Suppurative, Marked
[ Hyperplasia TGLS = 2-11 ]			
Testes [ Adenoma TGLS = 3-7 ]	Bilateral, Interstit Cell	Adenoma	
Zymbal's Gland [ Carcinoma TGLS = 1-12 ]		Carcinoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13141

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Parathyroid Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Heart		Cardiomyopathy	Mild
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Mild
Liver		Granuloma	Multifocal, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
Nose	Nasolacrim Dct	Hemorrhage	Mild
Pancreas	Acinus	Atrophy	Mild
Seminal Vesicle		Inflammation	Suppurative, Minimal
Skin		Ulcer	Mild
[ Ulcer TGLS = 1-12 ]			
Testes	Interstit Cell	Adenoma	Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13142

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**INSUFFICIENT TISSUE**

Intestine Large, Rectum

**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
[ Basophilic Focus TGLS = 4-4+11 ]			
Lung	Alveolus	Hemorrhage	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Preputial Gland		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 5,6-7+13 ]			
Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[ Adenoma TGLS = 2-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 373

DOSE: CONTROL

DISP: Moribund

HISTO: 13143

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Blood Vessel	Aorta	Atherosclerosis Thrombosis	
[ Atherosclerosis TGLS = 3,6-2+11. ]			
Bone Marrow		Hyperplasia	Reticulum Cell, Mild
Intestine Small, Jejunum		Adenocarcinoma	Mucinous
[ Adenocarcinoma TGLS = 5-12+13+14+15. ]			
Kidney		Mineralization	
Liver		Hematopoietic Cell Proliferation	Mild
[ Hematopoietic Cell Proliferation TGLS = 7-4. ]			
Lung	Alveolus	Hemorrhage	Mild
Lymph Node, Mediastinal		Mineralization	Mild
[ Mineralization TGLS = 4-2.,4-2 ]			
Pancreas	Acinus	Atrophy	Minimal
Spleen		Hyperplasia	Reticulum Cell, Moderate
[ Hyperplasia TGLS = 2-4. ]			
Testes	Seminif Tub	Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13144

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Kidney	Larynx
Liver	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Parathyroid Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Lymph Node, Bronchial	Thymus
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**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Lung	Alveolus	Hemorrhage	Mild
Nose	Nasolacrim Dct	Hemorrhage	Mild
Pancreas	Acinus	Atrophy	Minimal
		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Testes	Interstit Cell	Adenoma	Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13145

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	Moderate
[ Basophilic Focus TGLS = 2-4 ]			
Lung	Alveolus	Hemorrhage	Mild
	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
[ Hemorrhage TGLS = 1-3+11 ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Suppurative, Minimal
Pancreas	Acinus	Atrophy	Minimal
Testes	Interstit Cell	Adenoma	Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 633

DOSE: CONTROL

DISP: Moribund

HISTO: 13146

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Blood	Blood Vessel	Bone
Bone Marrow	Brain	Epididymis	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Mammary Gland	Nose	Pancreas	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	Multiple
Heart		Thrombosis	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-4 ]			
Lung	Alveolar Epith	Hyperplasia	Moderate
		Infiltration Cellular	Histiocyte, Moderate
		Leukemia Mononuclear	
[ Hyperplasia TGLS = 3-11 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-6+13 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-6+13 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-6+13 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-6+13 ]			
Preputial Gland		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 8-12 ]			
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 19

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 633

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13146

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Leukemia Mononuclear TGLS = 5-4 ]

Stomach, Forestomach

Acanthosis

Moderate

Stomach, Glandular

Erosion

Moderate

Testes

Interstit Cell

Adenoma

Multiple

[ Adenoma TGLS = 4-7 ]

Thymus

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 2-2 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 625

DOSE: CONTROL

DISP: Moribund

HISTO: 13147

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Brain	Epididymis
Esophagus	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Pancreas	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Blood Vessel		Mineralization	Moderate
Bone		Fibrous Osteodystrophy	
Bone Marrow		Myelofibrosis	Moderate
Eye	Antr Chamber	Inflammation	Suppurative, Moderate
	Cornea	Inflammation	Moderate
	[ Inflammation TGLS = 7-11 ]		
	[ Inflammation TGLS = 7-11 ]		
Heart		Cardiomyopathy	Marked
		Mineralization	Marked
	[ Mineralization TGLS = 3-4 ]		
Intestine Large, Cecum		Inflammation	Suppurative, Moderate
		Ulcer	Moderate
Kidney		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 5,6-5 ]		
Larynx		Inflammation	Suppurative, Minimal
		Mineralization	Mild
Liver		Hepatodiaphragmatic Nodule	
	[ Hepatodiaphragmatic Nodule TGLS = 8-12 ]		
Lung	Alveolus	Hemorrhage	Minimal
	Artery	Mineralization	Marked
	[ Hemorrhage TGLS = 1-3 ]		
Nose		Inflammation	Suppurative, Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 20

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 625

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13147

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Parathyroid Gland  
[ Hyperplasia TGLS = 2-2 ]

Hyperplasia

Moderate

Stomach, Forestomach

Mineralization

Moderate

Stomach, Glandular

Mineralization

Marked

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 4-7 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13148

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Larynx
Lymph Node, Bronchial	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Nose	Parathyroid Gland	Pituitary Gland	Salivary Glands
Seminal Vesicle	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder		

**MISSING**

Lymph Node, Mandibular

**OBSERVATIONS**

Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Moderate
Bone Marrow		Leukemia Mononuclear	
Heart		Cardiomyopathy	Minimal
Islets, Pancreatic [ Carcinoma TGLS = 7-4 ]		Carcinoma	
Kidney		Nephropathy	Chronic, Moderate
Liver	Biliar Tract Hepatocyte	Hyperplasia Hyperplasia Leukemia Mononuclear	Mild Marked
[ Leukemia Mononuclear TGLS = 6-4 ]			
Lung	Alveolus	Infiltration Cellular Leukemia Mononuclear	Histiocyte, Multifocal, Marked
[ Leukemia Mononuclear TGLS = 5-3 ]			
Pancreas	Acinus	Atrophy Leukemia Mononuclear	Moderate
Preputial Gland [ Cyst TGLS = 8-7 ]		Cyst	
Prostate	Epithelium	Hyperplasia Inflammation	Mild Suppurative, Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 21

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 13148

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 1-12 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11 ]			
Testes	Bilateral, Interstit Cell Seminif Tub	Adenoma Atrophy	Marked
[ Adenoma TGLS = 3,9-7 ]			
[ Atrophy TGLS = 4-7 ]			
Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 635

DOSE: CONTROL

DISP: Moribund

HISTO: 13149

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Parathyroid Gland

OBSERVATIONS

Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Mild
[ Nephropathy TGLS = 4-5 ]			
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
Preputial Gland		Carcinoma	
[ Carcinoma TGLS = 1-11+12 ]			
Spleen		Leukemia Mononuclear	
Testes	Interstit Cell	Adenoma	Multiple
	Seminif Tub	Atrophy	Moderate
[ Adenoma TGLS = 2,5-7 ]			
[ Atrophy TGLS = 6-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 536

DOSE: CONTROL

DISP: Moribund

HISTO: 13150

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Cortex	Leukemia Mononuclear	
Adrenal Medulla	Leukemia Mononuclear	
Bone Marrow	Leukemia Mononuclear	
Brain	Hemorrhage	Marked
	Leukemia Mononuclear	
Heart	Leukemia Mononuclear	
Kidney	Leukemia Mononuclear	
Larynx	Inflammation	Suppurative, Mild
Liver	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]		
Lung	Leukemia Mononuclear	
Lymph Node, Bronchial	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-12 ]		
Lymph Node, Mandibular	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-12 ]		
Lymph Node, Mediastinal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-12 ]		
Lymph Node, Mesenteric	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-12 ]		
Pituitary Gland	Leukemia Mononuclear	
Skin	Fibroma	
[ Fibroma TGLS = 3-11 ]		
Spleen	Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 23

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 536

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13150

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 1-4 ]

Testes

Interstit Cell

Adenoma

[ Adenoma TGLS = 5-7 ]

Thymus

Leukemia Mononuclear

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 24

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13151

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**OBSERVATIONS**

Adrenal Medulla	Bilateral	Hyperplasia	Moderate
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
Lung	Alveolus	Hemorrhage	Minimal
Mesentery		Hemorrhage	Marked
[ Hemorrhage TGLS = 2-11 ]			
Prostate	Epithelium	Hyperplasia	Minimal
Seminal Vesicle		Inflammation	Suppurative, Mild
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 25

TRT#: 1

SEX: Male

DAY ON TEST: 719

DOSE: CONTROL

DISP: Moribund

HISTO: 13152

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Parathyroid Gland	Pituitary Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Stomach, Forestomach
Stomach, Glandular	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Marked
Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Brain		Hemorrhage	Mild
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 5-5 ]		
Liver		Leukemia Mononuclear	
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
		Leukemia Mononuclear	
	[ Infiltration Cellular TGLS = 1-3+17 ]		
	[ Leukemia Mononuclear TGLS = 1-3+17 ]		
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 11-7,6-11,10-12,9-13+15 ]		
	[ Leukemia Mononuclear TGLS = 11-7,6-11,10-12,9-13+15 ]		
Lymph Node, Bronchial		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 6-11,10-12,9-13+15,11-7 ]		
Lymph Node, Mandibular		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 6-11,10-12,9-13+15,11-7 ]		
Lymph Node, Mediastinal		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 6-11,10-12,9-13+15,11-7 ]		
Lymph Node, Mesenteric		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 6-11,10-12,9-13+15,11-7 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

**ANIMAL ID:** 25

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 719

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13152

**ORGAN AND ACCOUNTABLE SITE STATUS**

Nose	Respirat Epith	Hyperplasia Inflammation	Moderate Suppurative, Moderate
	Respirat Epith	Metaplasia	Squamous, Mild
Pancreas		Leukemia Mononuclear	
Prostate		Inflammation	Suppurative, Mild
Skin	Subcut Tiss	Fibroma Leukemia Mononuclear	
	[ Fibroma TGLS = 8-14 ]		
	[ Leukemia Mononuclear TGLS = 7-16 ]		
Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 2-18 ]		
Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLS = 3,4-7 ]		
Thymus		Leukemia Mononuclear	

**PRIMARY CAUSE OF DEATH**

-

Animal Note: GROSS LESION 7 IS MCL IN SQ AROUND ZYMBALS GLAND.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 626

DOSE: CONTROL

DISP: Moribund

HISTO: 13153

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Lymph Node, Mediastinal	Lymph Node, Mesenteric
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**OBSERVATIONS**

Islets, Pancreatic		Carcinoma	
Kidney		Nephropathy	Chronic, Moderate
Liver		Granuloma	Multifocal, Mild
Lung	Alveolus	Hemorrhage	Moderate
	Alveolar Epith	Hyperplasia	Mild
Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Suppurative, Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Testes	Interstit Cell	Adenoma	Multiple
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13154

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Minimal
[ Hemorrhage TGLS = 2-3 ]			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Seminal Vesicle		Inflammation	Suppurative, Mild
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 1-12 ]			
Testes	Interstit Cell	Adenoma	Multiple
Thyroid Gland	Follicular Cel	Cyst	Mild
	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 712

DOSE: CONTROL

DISP: Moribund

HISTO: 13155

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Mild
Brain		Compression	
		Hydrocephalus	Minimal
Heart		Cardiomyopathy	Mild
Islets, Pancreatic		Carcinoma	
[ Carcinoma TGLS = 6-11 ]			
Kidney		Nephropathy	Chronic, Moderate
Liver		Hepatocellular Adenoma	
		Leukemia Mononuclear	
[ Hepatocellular Adenoma TGLS = 5-13 ]			
Lung		Alveolar/Bronchiolar Adenoma	
[ Alveolar/Bronchiolar Adenoma TGLS = 1-3 ]			
Pancreas	Acinus	Atrophy	Moderate
		Fibrosis	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 7-8 ]			
Seminal Vesicle		Inflammation	Suppurative, Mild
Spleen		Ectopic Tissue	
		Leukemia Mononuclear	
[ Ectopic Tissue TGLS = 4-12 ]			
[ Leukemia Mononuclear TGLS = 3-4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 28

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 712

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13155

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Testes

Interstit Cell

Adenoma

[ Adenoma TGLS = 2-7 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13156

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Adrenal Medulla		Pheochromocytoma Benign	
Kidney		Nephropathy	Chronic, Moderate
Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 3-11 ]			
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
Prostate		Inflammation	Suppurative, Mild
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 1-12 ]			
Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Marked
[ Adenoma TGLS = 2-7 ]			
[ Atrophy TGLS = 4-7 ]			
Tooth		Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13157

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lung	Mammary Gland	Nose	Parathyroid Gland
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 5-13 ]			
Pancreas	Acinus	Atrophy	Mild
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 1,2-11+14 ]			
Spleen		Fibrosis	Moderate
[ Fibrosis TGLS = 6-12 ]		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-12 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 4-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: CONTROL

DISP: Moribund

HISTO: 13158

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Liver	Lung	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Nose	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Thymus	Thyroid Gland
Trachea			

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Mild
Adrenal Medulla		Hyperplasia	Mild
Blood Vessel		Mineralization	Minimal
Brain		Compression	
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-5 ]			
Pancreas	Acinus	Atrophy	Moderate
		Fibrosis	Marked
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Prostate		Inflammation	Suppurative, Mild
Spleen		Fibrosis	Marked
[ Fibrosis TGLS = 2,3-11+12 ]			
Stomach, Forestomach		Inflammation	Suppurative, Mild
Stomach, Glandular		Inflammation	Suppurative, Mild
Testes	Arteriole	Inflammation	Moderate
Urinary Bladder	Transit Epithe	Hyperplasia	Mild
		Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 591

DOSE: CONTROL

DISP: Dead

HISTO: 13159

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Epididymis	Esophagus	Islets, Pancreatic
Mammary Gland	Pancreas	Parathyroid Gland	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Testes	Thymus	Thyroid Gland
Urinary Bladder			

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Nose
Trachea			

OBSERVATIONS

Adrenal Cortex		Hyperplasia	Mild
		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain		Compression	
		Hemorrhage	Moderate
[ Hemorrhage TGLS = 8-1 ]			
Heart		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Moderate
Liver	Biliar Tract	Hyperplasia	Moderate
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node	Iliac	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11,6-6+16,7-14,1-15 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11,6-6+16,7-14,1-15 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11,6-6+16,7-14,1-15 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

---

**ANIMAL ID:** 32

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 591

**DOSE:** CONTROL

**DISP:** Dead

**HISTO:** 13159

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Leukemia Mononuclear TGLS = 2-11,6-6+16,7-14,1-15 ]

Lymph Node, Mesenteric

Leukemia Mononuclear

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 2-11,2-11,6-6+16,6-6+16,7-14,7-14,1-15,1-15 ]

[ Leukemia Mononuclear TGLS = 2-11,2-11,6-6+16,6-6+16,7-14,7-14,1-15,1-15 ]

Pituitary Gland

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-8 ]

Prostate

Inflammation

Suppurative, Moderate

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4,9-12+13 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 712

DOSE: CONTROL

DISP: Moribund

HISTO: 13160

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lung	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Epididymis	Bilateral	Mesothelioma Malignant	
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-5 ]			
Larynx		Inflammation	Chronic, Minimal
Liver	Biliar Tract	Hyperplasia	Mild
[ Leukemia Mononuclear TGLS = 7,8-4+11+12 ]			
Nose		Hemorrhage	Mild
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
[ Hemorrhage TGLS = 2-8 ]			
Skin		Acanthosis	Marked
Spleen		Leukemia Mononuclear	
Stomach, Forestomach		Acanthosis	Moderate
[ Acanthosis TGLS = 9-13 ]			
[ Ulcer TGLS = 9-13 ]			
		Inflammation	Suppurative, Moderate
		Ulcer	Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 33

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 712

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13160

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Stomach, Glandular

Inflammation

Suppurative, Moderate

Testes

Interstit Cell

Adenoma

Interstit Cell

Hyperplasia

Mild

Mesothelioma Malignant

[ Adenoma TGLS = 4-7 ]

[ Mesothelioma Malignant TGLS = 4-7 ]

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 565

DOSE: CONTROL

DISP: Moribund

HISTO: 13161

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Islets, Pancreatic	Larynx	Mammary Gland	Nose
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain		Gliosis	Moderate
		Necrosis	Moderate
Heart		Leukemia Mononuclear	
Intestine Small, Jejunum	Peyers Patch	Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 7-6 ]		
Kidney		Leukemia Mononuclear	
	Cortex	Necrosis	Marked
		Nephropathy	Chronic, Mild
Note: CORTICAL NECROSIS IS PROBLY MCL-RELATED INFARCT			
	[ Necrosis TGLS = 6-5 ]		
Liver		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 5-4 ]		
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 4-6,2-7 ]		
Lymph Node, Mandibular		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 4-6,2-7 ]		
Lymph Node, Mediastinal		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 4-6,2-7 ]		
Lymph Node, Mesenteric		Hemorrhage	Marked

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:11  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 34	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 565
	<b>DOSE:</b> CONTROL	<b>DISP:</b> Moribund	<b>HISTO:</b> 13161

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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		Leukemia Mononuclear	
[ Hemorrhage TGLS = 4-6 ]			
[ Leukemia Mononuclear TGLS = 4-6,2-7 ]			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-11 ]			
Stomach, Forestomach		Acanthosis	Mild
		Hyperkeratosis	Mild
Stomach, Glandular		Hemorrhage	Marked
[ Hemorrhage TGLS = 8-8+12 ]			
Testes	Interstit Cell	Hyperplasia	Mild
Thymus		Leukemia Mononuclear	

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 624

DOSE: CONTROL

DISP: Dead

HISTO: 13162

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Epididymis	Esophagus
Heart	Islets, Pancreatic	Mammary Gland	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Stomach, Forestomach	Stomach, Glandular	Testes	Urinary Bladder

**MISSING**

Thymus

**AUTO PRECLUDES DIAG.**

Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Nose
Thyroid Gland	Trachea		

**OBSERVATIONS**

Adrenal Cortex	Cytomegaly	Mild
	Leukemia Mononuclear	
Adrenal Medulla	Leukemia Mononuclear	
Bone Marrow	Leukemia Mononuclear	
Kidney	Leukemia Mononuclear	
Liver	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-4 ]		
Lung	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-3 ]		
Lymph Node, Bronchial	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11,6-18,1-15 ]		
Lymph Node, Mandibular	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11,6-18,1-15 ]		
Lymph Node, Mediastinal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11,6-18,1-15 ]		
Lymph Node, Mesenteric	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11,6-18,1-15 ]		
Pancreas	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-13 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 35

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 624

**DOSE:** CONTROL

**DISP:** Dead

**HISTO:** 13162

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Pituitary Gland

Leukemia Mononuclear

Skin

Subcut Tiss

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-17 ]

Spleen

Leukemia Mononuclear

Necrosis

Marked

[ Leukemia Mononuclear TGLS = 5,9-12+14 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13163

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
		Hyperplasia	Mild
Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
Heart		Cardiomyopathy	Mild
Islets, Pancreatic		Hyperplasia	Mild
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-5 ]			
Larynx		Inflammation	Suppurative, Mild
Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 3,4-4+11 ]			
Nose	Respirat Epith	Hyperplasia	Minimal
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-7+12 ]			
Thyroid Gland	Follicular Cel	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 681

DOSE: CONTROL

DISP: Moribund

HISTO: 13164

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Nose
Parathyroid Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Mild
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Mild
Liver	Biliar Tract	Hyperplasia	Moderate
		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Preputial Gland		Carcinoma	
		[ Carcinoma TGLS = 1-13 ]	
Spleen		Fibrosis	Marked
		Leukemia Mononuclear	
		[ Fibrosis TGLS = 4-12 ]	
		[ Leukemia Mononuclear TGLS = 3-11+12 ]	
Testes	Interstit Cell	Adenoma	
		[ Adenoma TGLS = 2-7 ]	
Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13165

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
	Alveolus	Inflammation	Suppurative, Mild
	[ Hyperplasia TGLS = 3-3+11 ]		
	[ Infiltration Cellular TGLS = 3-3+11 ]		
Nose		Inflammation	Suppurative, Minimal
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 1-8 ]		
Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLS = 2-7 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 597

DOSE: CONTROL

DISP: Moribund

HISTO: 13166

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain		Hemorrhage	Marked
		Leukemia Mononuclear	
[ Hemorrhage TGLS = 3-1 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 8-13 ]			
[ Leukemia Mononuclear TGLS = 9-4+13 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-12 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6 ]			
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 4,5-16+17 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

**ANIMAL ID:** 39

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 597

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13166

**ORGAN AND ACCOUNTABLE SITE STATUS**

Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Skin		Fibrosarcoma	
[ Fibrosarcoma TGLS = 2-11 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-14 ]			
Stomach, Forestomach		Acanthosis	Moderate
		Ulcer	Marked
[ Ulcer TGLS = 11-15 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 6-7 ]			
Thymus		Leukemia Mononuclear	
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 691

DOSE: CONTROL

DISP: Moribund

HISTO: 13167

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Lung	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Spleen	Stomach, Glandular	Testes	Thymus
Trachea	Urinary Bladder		

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Moderate
Adrenal Medulla		Hyperplasia	Mild
Islets, Pancreatic		Carcinoma	
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Larynx		Metaplasia	Squamous, Minimal
Liver		Vacuolization Cytoplasmic	Moderate
[ Vacuolization Cytoplasmic TGLS = 2-4 ]			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Prostate		Inflammation	Suppurative, Moderate
Stomach, Forestomach		Acanthosis	Minimal
		Hyperkeratosis	Minimal
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 600

DOSE: CONTROL

DISP: Moribund

HISTO: 13168

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial
Lymph Node, Mediastinal	Mammary Gland	Nose	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Testes	Trachea
Urinary Bladder			

**MISSING**

Lymph Node, Mandibular	Thymus
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Suppurative, Mild
Liver	Biliar Tract	Hyperplasia	Moderate
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-6 ]			
Pancreas	Acinus	Atrophy	Mild
Parathyroid Gland		Hyperplasia	Minimal
Preputial Gland		Cyst	
[ Cyst TGLS = 4-7 ]			
Spleen		Leukemia Mononuclear	
		Necrosis	Moderate
[ Leukemia Mononuclear TGLS = 1-11 ]			
[ Necrosis TGLS = 3-11 ]			
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 694

DOSE: CONTROL

DISP: Moribund

HISTO: 13169

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Epididymis	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose
Pancreas	Parathyroid Gland	Salivary Glands	Seminal Vesicle
Skin	Stomach, Forestomach	Stomach, Glandular	Testes
Thymus	Trachea		

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
[ Pheochromocytoma Benign TGLS = 8-5 ]			
Brain		Compression	
		Hydrocephalus	Minimal
[ Compression TGLS = 6-1 ]			
Heart		Leukemia Mononuclear	
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-5 ]			
Liver		Leukemia Mononuclear	
Lung		Alveolar/Bronchiolar Adenoma	
		Leukemia Mononuclear	
Mammary Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Preputial Gland		Carcinoma	
		Inflammation	Suppurative, Moderate
[ Carcinoma TGLS = 2-7+12 ]			
Prostate		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:11

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

**Lab:** BNW

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**ANIMAL ID:** 42

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 694

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13169

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 3-11 ]

[ Necrosis TGLS = 7-11 ]

Thyroid Gland

C Cell

Adenoma

Urinary Bladder

Transit Epithe

Hyperplasia

Necrosis

Marked

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:11

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13170

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Blood	Bone
Bone Marrow	Brain	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Liver	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Parathyroid Gland	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea			

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Mild
[ Hemorrhage TGLS = 1-3+11 ]			
Pancreas	Acinus	Atrophy	Minimal
Testes	Interstitial Cell	Adenoma	
Urinary Bladder		Papilloma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 660

DOSE: CONTROL

DISP: Dead

HISTO: 13171

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Islets, Pancreatic
Larynx	Liver	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Parathyroid Gland	Pituitary Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**AUTO PRECLUDES DIAG.**

Intestine Small, Ileum

**OBSERVATIONS**

Adrenal Medulla		Pheochromocytoma Malignant	
[ Pheochromocytoma Malignant TGLS = 5-11 ]			
Intestine Small, Jejunum		Fibroma	
[ Fibroma TGLS = 6-12 ]			
Kidney		Nephropathy	Chronic, Marked
Lung		Pheochromocytoma Malignant	Metastatic (Adrenal Medulla)
Note: 2 SMALL METS ANT TO DIAPH MARGIN OF LEFT LOBE			
Pancreas	Acinus	Atrophy	Mild
Preputial Gland		Cyst	
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 3-7 ]			

PRIMARY CAUSE OF DEATH

-

Animal Note: DIFF DX PHEO

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 597

DOSE: CONTROL

DISP: Moribund

HISTO: 13172

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Brain		Compression	
		Hydrocephalus	Moderate
[ Compression TGLS = 3-1 ]			
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 2,4-11+12 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Prostate		Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13173

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Mandibular	Lymph Node, Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Bone	Lymph Node, Bronchial
------	-----------------------

**OBSERVATIONS**

Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Infarct	Marked
Note: LIVER LESION IS TORSION OF SMALL LOBE. [ Infarct TGLS = 2-12 ]			
Lung	Alveolus	Hemorrhage	Mild
	Artery	Mineralization	Mild
[ Hemorrhage TGLS = 3-3+11 ]			
Lymph Node, Mediastinal		Hemorrhage	Moderate
[ Hemorrhage TGLS = 1-2 ]			
Nose		Hemorrhage	Mild
Seminal Vesicle		Inflammation	Suppurative, Moderate
Testes	Interstit Cell	Adenoma	Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13174

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
Brain		Hydrocephalus	Minimal
Eye		Atrophy	Marked
[ Atrophy TGLS = 1-14 ]			
Heart		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung		Alveolar/Bronchiolar Adenoma	
[ Leukemia Mononuclear TGLS = 7-3 ]		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-2 ]			
Mesentery		Inflammation	Granulomatous, Marked
		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 47

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 13174

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Leukemia Mononuclear TGLS = 10-12 ]

Pancreas Acinus Atrophy Mild

Pituitary Gland Pars Distalis Adenoma

[ Adenoma TGLS = 4-8 ]

Prostate Epithelium Hyperplasia Mild

Inflammation Suppurative, Mild

[ Inflammation TGLS = 5-8 ]

Spleen Fibrosis Marked

Leukemia Mononuclear

[ Fibrosis TGLS = 9-11 ]

[ Leukemia Mononuclear TGLS = 2-11 ]

Testes Interstit Cell Adenoma

[ Adenoma TGLS = 11-7 ]

Thymus Leukemia Mononuclear

**PRIMARY CAUSE OF DEATH**

-

Animal Note: GROSS LESION 6 IS NOT LN.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 651

DOSE: CONTROL

DISP: Dead

HISTO: 13175

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Mammary Gland
Pancreas	Parathyroid Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

AUTO PRECLUDES DIAG.

Intestine Small, Jejunum

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Mild
Brain		Hemorrhage	Marked
[ Hemorrhage TGLS = 4-1 ]			
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Suppurative, Mild
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Nose		Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Preputial Gland		Inflammation	Suppurative, Moderate
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 48

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 651

**DOSE:** CONTROL

**DISP:** Dead

**HISTO:** 13175

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Leukemia Mononuclear TGLS = 2-11 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 5-7 ]

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 544

DOSE: CONTROL

DISP: Moribund

HISTO: 13176

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Blood Vessel		Atherosclerosis	Diffuse
Note: THIS IS PERIARTERITIS [ Atherosclerosis TGLS = 2,3,4,5,8,10-15+14+2+4+16 ]			
Eye		Cataract	Mild
	Choroid, Iris	Inflammation	Chronic, Mild
[ Cataract TGLS = 1-12 ]			
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
[ Basophilic Focus TGLS = 6-13 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 2-15 ]			
Nose		Hemorrhage	Mild
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 9-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 7,11-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 569

DOSE: CONTROL

DISP: Moribund

HISTO: 13177

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Liver	Biliar Tract	Hyperplasia	Mild
		Leukemia Mononuclear	
Lung	Alveolar Epith	Hyperplasia	Mild
		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Spleen		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 2-11 ]	
Testes	Bilateral, Interstit Cell	Adenoma	
		[ Adenoma TGLS = 4-7 ]	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 51

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13178

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Larynx	Mammary Gland	Pancreas	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Heart		Leukemia Mononuclear	
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Marked
Liver		Leukemia Mononuclear	
Lung	Alveolar Epith Alveolus	Hyperplasia Infiltration Cellular Leukemia Mononuclear	Mild Histiocyte, Multifocal, Moderate
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Pigmentation	Moderate
Nose	Nasolacrim Dct	Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Inflammation	Suppurative, Mild
[ Hyperplasia TGLS = 4-8 ]		Hyperplasia	Mild
Prostate		Inflammation	Suppurative, Minimal
Spleen		Fibrosis	Moderate
[ Leukemia Mononuclear TGLS = 2-11 ]		Leukemia Mononuclear	
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1,3-7 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 51

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 13178

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 52

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13179

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Clear Cell Focus	
		Granuloma	Multifocal, Mild
Lung	Alveolus	Hemorrhage	Minimal
Nose	Nasolacrim Dct	Hemorrhage	Mild
Pancreas	Artery	Inflammation	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
Testes	Interstit Cell	Adenoma	Multiple

[ Adenoma TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 53

TRT#: 1

SEX: Male

DAY ON TEST: 458

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13180

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
[ Hemorrhage TGLS = 1-3+11 ]			
Lymph Node	Renal	Hemorrhage	Marked
[ Hemorrhage TGLS = 2-5 ]			
Testes	Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 54

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13181

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lung	Lymph Node, Bronchial
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 5-7 ]			
Mesentery		Hemorrhage	Marked
	Fat	Necrosis	Moderate
[ Hemorrhage TGLS = 4-12 ]			
Nose		Pigmentation	Minimal
Note: PIGMENT IN MS; LIGHTER THAN IN RX RATS.			
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Skin		Squamous Cell Papilloma	
[ Squamous Cell Papilloma TGLS = 1-11 ]			
Spleen		Leukemia Mononuclear	
Stomach, Forestomach		Acanthosis	Moderate
		Hyperkeratosis	Moderate
		Inflammation	Suppurative, Marked
[ Acanthosis TGLS = 6-8 ]			
[ Inflammation TGLS = 6-8 ]			
Stomach, Glandular		Inflammation	Suppurative, Marked

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 54

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 733

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 13181

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Inflammation TGLS = 6-8 ]

Testes

Bilateral, Interstit Cell  
Seminif Tub

Adenoma  
Atrophy

Marked

[ Adenoma TGLS = 2-7 ]

[ Atrophy TGLS = 3-7 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 55

TRT#: 1

SEX: Male

DAY ON TEST: 617

DOSE: CONTROL

DISP: Moribund

HISTO: 13182

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Nose	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Mild
Liver	Biliar Tract	Hyperplasia	Moderate
	[ Leukemia Mononuclear TGLS = 5-4 ]	Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Preputial Gland		Cyst	
	[ Cyst TGLS = 6-12 ]		
Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 4-11 ]		
Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLS = 2,3-7 ]		
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 56

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13183

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Larynx
Lung	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Parathyroid Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Moderate
Adrenal Medulla		Hyperplasia	Moderate
Heart		Cardiomyopathy	Minimal
Islets, Pancreatic		Adenoma	
[ Adenoma TGLS = 3-4 ]			
Kidney		Nephropathy	Chronic, Marked
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 4-11 ]			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8,2-8 ]			
Preputial Gland		Carcinoma	
[ Carcinoma TGLS = 1-12+13 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 5-7 ]			
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 57

TRT#: 1

SEX: Male

DAY ON TEST: 464

DOSE: CONTROL

DISP: Moribund

HISTO: 13184

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Prostate	Salivary Glands	Seminal Vesicle	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Brain		Compression	
Eye		Cataract	Mild
	Choroid, Iris	Inflammation	Chronic, Mild
[ Cataract TGLS = 1-12 ]			
[ Inflammation TGLS = 1-12 ]			
Kidney		Nephropathy	Chronic, Moderate
Lung	Alveolus	Hemorrhage	Minimal
Mesentery	Fat	Necrosis	Mild
[ Necrosis TGLS = 5-15 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-8 ]			
Preputial Gland		Carcinoma	
[ Carcinoma TGLS = 3-11 ]			
Skeletal Muscle		Rhabdomyosarcoma	
[ Rhabdomyosarcoma TGLS = 6-13+14 ]			
Skin		Abscess	Minimal
		Ulcer	Moderate
[ Ulcer TGLS = 2-11 ]			
Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 58

TRT#: 1

SEX: Male

DAY ON TEST: 683

DOSE: CONTROL

DISP: Moribund

HISTO: 13185

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign Pheochromocytoma Malignant	
Kidney [ Nephropathy TGLS = 3-5 ]		Nephropathy	Chronic, Marked
Liver [ Leukemia Mononuclear TGLS = 2-4 ]		Leukemia Mononuclear	
Lung	Alveolus	Infiltration Cellular Leukemia Mononuclear	Histiocyte, Multifocal, Mild
Lymph Node, Mesenteric [ Inflammation TGLS = 5-6 ]		Inflammation	Marked
Mesentery [ Inflammation TGLS = 4-12 ] [ Necrosis TGLS = 4-12 ]	Fat	Inflammation Necrosis	Granulomatous, Marked Marked
Nose		Hemorrhage	Moderate
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Spleen [ Leukemia Mononuclear TGLS = 1-11 ]		Leukemia Mononuclear	
Testes	Arteriole	Inflammation	Marked
Thyroid Gland	C Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 58

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 683

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13185

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 59

TRT#: 1

SEX: Male

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13186

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder		

**OBSERVATIONS**

Islets, Pancreatic		Hyperplasia	Moderate
Kidney		Nephropathy	Chronic, Moderate
Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Hemorrhage	Minimal
	Alveolar Epith	Hyperplasia	Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 2-11 ]			
Pancreas	Acinus	Atrophy	Moderate
[ Atrophy TGLS = 3-4 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-8 ]			
Testes	Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-7 ]			
Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 60

TRT#: 1

SEX: Male

DAY ON TEST: 481

DOSE: CONTROL

DISP: Dead

HISTO: 13187

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Rectum	Islets, Pancreatic	Larynx
Liver	Lung	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Pancreas	Parathyroid Gland	Preputial Gland	Prostate
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Testes	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**AUTO PRECLUDES DIAG.**

Intestine Large, Colon	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Pituitary Gland	Pars Distalis	Adenoma	
Note: PCOD IS PITUITARY TUMOR [ Adenoma TGLS = 3-8 ]			
Seminal Vesicle		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 201

TRT#: 3

SEX: Male

DAY ON TEST: 639

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13488

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Mild
Heart		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-4+11 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 3-4 ]		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4,5-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Foreign Body	Moderate
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Suppurative, Mild
Pancreas		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Prostate	Epithelium	Hyperplasia	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 201

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 639

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13488

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Testes

Interstit Cell

Adenoma

[ Adenoma TGLS = 8-7 ]

Interstit Cell

Hyperplasia

Marked

Thymus

[ Leukemia Mononuclear TGLS = 7-2 ]

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 202

TRT#: 3

SEX: Male

DAY ON TEST: 584

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13489

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Mammary Gland	Pancreas
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Stomach, Forestomach	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain		Hemorrhage	Marked
		Leukemia Mononuclear	
[ Hemorrhage TGLS = 2-1 ]			
Heart		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Suppurative, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 5-13 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Skin		Hyperkeratosis	Moderate
		Ulcer	Marked
[ Hyperkeratosis TGLS = 8,9-11+12 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:12  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 202	<b>TRT#:</b> 3 <b>DOSE:</b> 0.01 PPM	<b>SEX:</b> Male <b>DISP:</b> Moribund	<b>DAY ON TEST:</b> 584 <b>HISTO:</b> 13489
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Ulcer TGLS = 9-12 ] Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-13 ] Stomach, Glandular		Erosion	Moderate
[ Erosion TGLS = 10-14 ] Testes	Seminif Tub	Atrophy Leukemia Mononuclear	Marked
[ Atrophy TGLS = 3-7 ] [ Leukemia Mononuclear TGLS = 4-7 ] Thymus		Leukemia Mononuclear	
Thyroid Gland	C Cell	Adenoma	
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 203

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 670

HISTO: 13490

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Larynx	Liver	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Preputial Gland	Salivary Glands
Skin	Spleen	Testes	Thymus
Trachea			

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
Eye [ Inflammation TGLS = 3-11 ]	Antr Chamber	Inflammation	Suppurative, Moderate
Heart [ Cardiomyopathy TGLS = 2-4 ]		Cardiomyopathy Mineralization	Moderate Moderate
Islets, Pancreatic		Adenoma	
Kidney [ Dilatation TGLS = 8-5 ] [ Necrosis TGLS = 8-5 ] [ Nephropathy TGLS = 9-5 ]	Pelvis  Papilla	Dilatation Mineralization Necrosis Nephropathy	Marked Marked Moderate Chronic, Moderate
Lung [ Inflammation TGLS = 1-3 ]	Alveolus Artery	Inflammation Mineralization	Suppurative, Mild Moderate
Nose	Respirat Epith	Hyperplasia Pigmentation	Minimal Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 203

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 670

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13490

**ORGAN AND ACCOUNTABLE SITE STATUS**

Pancreas	Acinus	Atrophy	Mild
Parathyroid Gland		Hyperplasia	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-8 ]			
Prostate	Epithelium	Hyperplasia	Mild
[ Inflammation TGLS = 5-12 ]		Inflammation	Suppurative, Marked
Seminal Vesicle		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 5-12 ]			
Stomach, Forestomach		Acanthosis	Minimal
		Inflammation	Suppurative, Mild
Stomach, Glandular		Inflammation	Suppurative, Mild
		Mineralization	Moderate
Thyroid Gland		Ultimobranchial Cyst	
Urinary Bladder		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 6-12 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 204

TRT#: 3

SEX: Male

DAY ON TEST: 370

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13491

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Kidney	Larynx	Mammary Gland
Parathyroid Gland	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Skin	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Brain		Hemorrhage	Marked
[ Hemorrhage TGLS = 1-1. ]			
Heart	Myocardium	Hemorrhage	Mild
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
[ Leukemia Mononuclear TGLS = 3-4. ]			
[ Vacuolization Cytoplasmic TGLS = 3-4. ]			
Lung	Alveolus	Hemorrhage	Minimal
		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11.,5-6 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11.,5-6 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11.,5-6 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11.,5-6 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11.,5-6 ]			
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Mild
Seminal Vesicle		Inflammation	Suppurative, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 204

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 370

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13491

**ORGAN AND ACCOUNTABLE SITE STATUS**

Spleen [ Leukemia Mononuclear TGLS = 2-4. ]	Leukemia Mononuclear	
Stomach, Forestomach  [ Acanthosis TGLS = 8-12. ] [ Ulcer TGLS = 8-12. ]	Acanthosis Hyperkeratosis Ulcer	Marked Moderate Moderate
Stomach, Glandular [ Erosion TGLS = 7-8. ]	Erosion	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 205

TRT#: 3

SEX: Male

DAY ON TEST: 541

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13492

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Kidney		Leukemia Mononuclear Nephropathy	Chronic, Mild
[ Leukemia Mononuclear TGLS = 5-5 ]			
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung	Alveolus	Infiltration Cellular Leukemia Mononuclear	Histiocyte, Multifocal, Moderate
[ Infiltration Cellular TGLS = 2-3 ]			
Nose		Pigmentation	Minimal
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-11 ]			
Testes	Interstit Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 206

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Dead

DAY ON TEST: 636

HISTO: 13493

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Brain		Compression	
		Hemorrhage	Mild
Islets, Pancreatic		Carcinoma	
[ Carcinoma TGLS = 4-4 ]			
Kidney		Nephropathy	Chronic, Marked
Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 6-4 ]			
Lung	Alveolus	Hemorrhage	Moderate
[ Hemorrhage TGLS = 1-3 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 3-11 ]			
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Prostate		Inflammation	Suppurative, Moderate
Spleen		Fibrosis	Marked
		Leukemia Mononuclear	
[ Fibrosis TGLS = 5-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 207

TRT#: 3

SEX: Male

DAY ON TEST: 709

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13494

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mesenteric
Mammary Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Skin	Stomach, Forestomach	Stomach, Glandular	Testes
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Lymph Node, Mediastinal	Parathyroid Gland	Thymus
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**OBSERVATIONS**

Adrenal Cortex		Hyperplasia	Moderate
Adrenal Medulla		Hyperplasia	Mild
Brain		Compression	
		Hydrocephalus	Moderate
Kidney		Nephropathy	Chronic, Marked
Liver		Basophilic Focus	
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-4 ]			
Lung	Alveolus	Hemorrhage	Marked
	Alveolus	Inflammation	Suppurative, Minimal
[ Hemorrhage TGLS = 1-3 ]			
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Prostate		Inflammation	Suppurative, Moderate
[ Inflammation TGLS = 5-8 ]			
Spleen		Fibrosis	Marked
[ Fibrosis TGLS = 4-11 ]		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 207

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 709

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13494

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 3-11 ]

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 208

TRT#: 3

SEX: Male

DAY ON TEST: 724

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13495

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
Heart		Cardiomyopathy	Mild
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-3 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 2-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 209

TRT#: 3

SEX: Male

DAY ON TEST: 458

DOSE: 0.01 PPM

DISP: Interval Sacrifice

HISTO: 13496

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Larynx

Metaplasia

Squamous, Minimal

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 1-4. ]

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 2-3. ]

Nose

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 210

TRT#: 3

SEX: Male

DAY ON TEST: 523

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13497

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach, Forestomach	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**OBSERVATIONS**

Blood Vessel [ Mineralization TGLS = 3-2+11 ]		Mineralization	Diffuse, Moderate
Heart [ Cardiomyopathy TGLS = 2-4 ]		Cardiomyopathy Mineralization	Marked Marked
Intestine Small, Ileum		Inflammation	Suppurative, Moderate
Kidney [ Dilatation TGLS = 7-5 ] [ Nephropathy TGLS = 5-5 ]	Pelvis	Dilatation Mineralization Nephropathy	Moderate Marked Chronic, Marked
Liver		Leukemia Mononuclear	
Lung [ Hyperplasia TGLS = 6-12 ]	Alveolar Epith	Hyperplasia	Moderate
Mesentery [ Necrosis TGLS = 4-13 ]	Fat	Necrosis	Marked
Nose		Inflammation Pigmentation	Suppurative, Mild Minimal
Pancreas	Acinus	Atrophy	Minimal
Parathyroid Gland [ Hyperplasia TGLS = 1-2 ]		Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 210

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 523

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13497

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Spleen

Leukemia Mononuclear

Stomach, Glandular

Mineralization

Marked

Testes

Interstit Cell

Hyperplasia

Moderate

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 211

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13498

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Liver

Basophilic Focus

Clear Cell Focus

[ Basophilic Focus TGLS = 2-4 ]

[ Clear Cell Focus TGLS = 1-11 ]

Lung

Alveolus

Hemorrhage

Mild

Nose

Pigmentation

Minimal

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 3-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 212

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13499

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Larynx

Foreign Body

Mild

Inflammation

Suppurative, Mild

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 1-3. ]

Nose

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 213

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13500

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx Trachea

**OBSERVATIONS**

Lung		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Preputial Gland		Hyperplasia	Moderate
[ Hyperplasia TGLS = 6-7 ]			
Skin		Acanthosis	Marked
[ Acanthosis TGLS = 1-11 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 3-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 214

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13501

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Adrenal Medulla

[ Pheochromocytoma Benign TGLS = 4-5 ]

Pheochromocytoma Benign

Lung

Leukemia Mononuclear

Nose

Pigmentation

Mild

Skin

Acanthosis

Marked

Sebaceous Gland

Carcinoma

[ Acanthosis TGLS = 3-11 ]

[ Carcinoma TGLS = 1-12 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 2-4 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 5,6-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 215

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13502

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Alveolar/Bronchiolar Adenoma

Alveolus

Hemorrhage

Mild

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Moderate

Nose

Inflammation

Suppurative, Minimal

Pigmentation

Minimal

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 216

TRT#: 3

SEX: Male

DAY ON TEST: 544

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13503

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Lung	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Parathyroid Gland	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**OBSERVATIONS**

Adrenal Medulla		Hyperplasia	Minimal
Islets, Pancreatic		Carcinoma	
[ Carcinoma TGLS = 2-4 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Marked
Skin		Fibrosarcoma	
[ Fibrosarcoma TGLS = 1-11 ]			
Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 217

TRT#: 3

SEX: Male

DAY ON TEST: 634

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13504

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Mammary Gland	Pancreas	Parathyroid Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Thyroid Gland	Trachea	Urinary Bladder

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Moderate
Adrenal Medulla		Hyperplasia	Mild
Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Chronic, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-3 ]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Preputial Gland		Cyst	
Prostate		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 217

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 634

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13504

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 4-4 ]

Testes

Interstit Cell

Adenoma

Hyperplasia

Moderate

[ Adenoma TGLS = 3-7 ]

Thymus

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 218

TRT#: 3

SEX: Male

DAY ON TEST: 639

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13505

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Parathyroid Gland
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Thyroid Gland	Trachea	Urinary Bladder	

**OBSERVATIONS**

Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
[ Pheochromocytoma Benign TGLS = 3-5 ]			
Kidney		Nephropathy	Chronic, Mild
Liver	Biliar Tract	Hyperplasia	Marked
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7,1-3 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7,1-3 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7,1-3 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7,1-3 ]			
Nose	Respirat Epith	Foreign Body	Mild
		Hyperplasia	Minimal
		Inflammation	Suppurative, Minimal
		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Marked
		Leukemia Mononuclear	
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 218

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 639

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13505

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Leukemia Mononuclear TGLS = 2-4+11 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 6-7 ]

Thymus

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 219

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13506

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Alveolar Epith

Hyperplasia

Minimal

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Mild

[ Hemorrhage TGLS = 2-3 ]

Nose

Hemorrhage

Mild

Pigmentation

Minimal

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 220

TRT#: 3

SEX: Male

DAY ON TEST: 681

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13507

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Lymph Node, Bronchial	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Pancreas	Parathyroid Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Lymph Node, Mandibular

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Marked
		Hyperplasia	Moderate
Adrenal Medulla		Hyperplasia	Marked
Bone Marrow		Myelofibrosis	Mild
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Liver	Hepatocyte	Hyperplasia	Marked
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
		[ Leukemia Mononuclear TGLS = 2-4 ]	
		[ Vacuolization Cytoplasmic TGLS = 2-4 ]	
Lung		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Preputial Gland		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 3-4 ]	
Stomach, Forestomach		Acanthosis	Mild
		Hyperkeratosis	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 220

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 681

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13507

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Testes

Interstit Cell

Adenoma

Moderate

Interstit Cell

Hyperplasia

[ Adenoma TGLS = 1-7 ]

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PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 221

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 705

HISTO: 13508

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Pancreas	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Malignant	
[ Pheochromocytoma Malignant TGLS = 8-5 ]			
Eye		Cataract	Mild
Heart		Cardiomyopathy	Minimal
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
Liver		Eosinophilic Focus	
		Leukemia Mononuclear	
[ Eosinophilic Focus TGLS = 3-4 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-3 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Hemorrhage	Mild
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 4-11 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 221

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 705

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13508

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 6-4 ]

Testes Bilateral, Interstit Cell

Adenoma

Seminif Tub

Atrophy

Marked

[ Adenoma TGLS = 5-7 ]

[ Atrophy TGLS = 10-7 ]

Thymus Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 222

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 724

HISTO: 13509

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Brain		Compression	
		Hydrocephalus	Mild
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-5 ]			
Larynx		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Suppurative, Mild
[ Inflammation TGLS = 3-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[ Adenoma TGLS = 2-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 223

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 662

HISTO: 13510

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Pancreas
Pituitary Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Thymus	Trachea	Urinary Bladder	

MISSING

Parathyroid Gland

OBSERVATIONS

Bone Marrow	Leukemia Mononuclear	
Heart	Thrombosis	
Kidney	Leukemia Mononuclear	
	Nephropathy	Chronic, Moderate
Liver	Hepatodiaphragmatic Nodule	
	Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 3-14 ]		
Lung	Leukemia Mononuclear	
Lymph Node, Bronchial	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-7,10-6 ]		
Lymph Node, Mandibular	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-7,10-6 ]		
Lymph Node, Mediastinal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-7,10-6 ]		
Lymph Node, Mesenteric	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-7,10-6 ]		
Nose	Pigmentation	Mild
Prostate	Inflammation	Suppurative, Mild
Skin	Hyperkeratosis	Mild
	Squamous Cell Papilloma	
[ Hyperkeratosis TGLS = 4-11 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:12  
**First Dose M/F:** NA / NA  
**Lab:** BNW

**ANIMAL ID:** 223

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 662

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13510

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Squamous Cell Papilloma TGLS = 1-15 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-13 ]			
Stomach, Forestomach		Acanthosis	Mild
		Hyperkeratosis	Minimal
Stomach, Glandular		Necrosis	Moderate
[ Necrosis TGLS = 9-8 ]			
Testes	Interstit Cell	Adenoma	Multiple
[ Adenoma TGLS = 8-7 ]			
Thyroid Gland		Ultimobranchial Cyst	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 224

TRT#: 3

SEX: Male

DAY ON TEST: 458

DOSE: 0.01 PPM

DISP: Interval Sacrifice

HISTO: 13511

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Eye

Cataract

Mild

[ Cataract TGLS = 1-13. ]

Larynx

Metaplasia

Squamous, Minimal

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 2-3. ]

Nose

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 225

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13512

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx

Trachea

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**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Artery

Mineralization

Minimal

[ Hemorrhage TGLS = 1-3. ]

Nose

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 226

TRT#: 3

SEX: Male

DAY ON TEST: 451

DOSE: 0.01 PPM

DISP: Dead

HISTO: 13513

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Islets, Pancreatic	Liver
Lymph Node, Bronchial	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Pancreas	Parathyroid Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**AUTO PRECLUDES DIAG.**

Intestine Large, Cecum	Intestine Small, Ileum	Intestine Small, Jejunum
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**OBSERVATIONS**

Brain		Hemorrhage	Multifocal, Moderate
[ Hemorrhage TGLS = 3,4-1 ]			
Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Suppurative, Minimal
Lung	Alveolus	Hemorrhage	Mild
[ Hemorrhage TGLS = 2-3 ]			
Lymph Node, Mandibular		Hemorrhage	Moderate
[ Hemorrhage TGLS = 1-7 ]			
Nose		Pigmentation	Minimal
Note: FLOATER IS SEEN IN NASAL CAVITY.			
Pituitary Gland		Hemorrhage	Moderate
Testes	Interstit Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 227

TRT#: 3

SEX: Male

DAY ON TEST: 540

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13514

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Liver	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Prostate
Salivary Glands	Seminal Vesicle	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**OBSERVATIONS**

Adrenal Cortex		Necrosis	Minimal
Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Mild
Larynx			
Note: PHOTOGENIC LS OF MUCUS GL DUCT ON SURFACE OF EPIGLOTTIS.			
Nose		Hemorrhage	Mild
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Preputial Gland		Carcinoma	
[ Carcinoma TGLS = 1-11 ]			
Skin		Ulcer	Moderate
[ Ulcer TGLS = 1-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 2-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 228

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13515

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Stomach, Glandular

Trachea

**OBSERVATIONS**

Liver

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 5-4 ]

Lung

Leukemia Mononuclear

Nose

Hemorrhage

Mild

Pigmentation

Minimal

Preputial Gland

Cyst

[ Cyst TGLS = 8-7 ]

Skin

Abscess

Moderate

Cyst Epithelial Inclusion

Fibroma

[ Abscess TGLS = 6-11 ]

[ Cyst Epithelial Inclusion TGLS = 6-11 ]

[ Fibroma TGLS = 1-13 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-12 ]

Stomach, Forestomach

Acanthosis

Moderate

Ulcer

Marked

[ Acanthosis TGLS = 9-8 ]

[ Ulcer TGLS = 9-8 ]

Testes

Interstitial Cell

Adenoma

Seminif Tub

Atrophy

Marked

[ Adenoma TGLS = 3-7 ]

[ Atrophy TGLS = 2-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 229

TRT#: 3

SEX: Male

DAY ON TEST: 379

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13516

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach, Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Brain		Hemorrhage	Moderate
Kidney		Mineralization	Minimal
		Nephropathy	Chronic, Minimal
Lung		Carcinoma	Metastatic (Zymbal'S Gland)
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Minimal
[ Hyperplasia TGLS = 2-7. ]			
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland		Carcinoma	Metastatic (Zymbal'S Gland)
Seminal Vesicle		Inflammation	Suppurative, Minimal
Stomach, Forestomach		Hyperkeratosis	Mild
Zymbal's Gland		Carcinoma	

Note: ORIGIN OF CA NOT OBVIOUS ON SECTION,BASED ON LOCATION.

[ Carcinoma TGLS = 1-11. ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 230

TRT#: 3

SEX: Male

DAY ON TEST: 600

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13517

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung	Alveolar Epith	Hyperplasia	Moderate
Nose		Foreign Body	Moderate
	Respirat Epith	Hyperplasia	Moderate
	Respirat Epith	Metaplasia	Squamous, Moderate
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 231

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13518

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx

Trachea

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**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Nose

Pigmentation

Minimal

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 1-7 ]

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 232

TRT#: 3

SEX: Male

DAY ON TEST: 719

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13519

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Mammary Gland	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Testes	Thyroid Gland	Trachea

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Marked
Adrenal Medulla	Bilateral	Leukemia Mononuclear	
		Hyperplasia	Moderate
Bone Marrow		Leukemia Mononuclear	
Brain		Leukemia Mononuclear	
		Compression	
		Hydrocephalus	Marked
	[ Hydrocephalus TGLS = 6-1 ]		
Heart		Leukemia Mononuclear	
Islets, Pancreatic		Adenoma	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
	[ Leukemia Mononuclear TGLS = 4-5 ]		
Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
	[ Hepatodiaphragmatic Nodule TGLS = 3-12 ]		
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 11-16,10-14,8-3 ]		
Lymph Node, Mandibular		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 11-16,10-14,8-3 ]		
Lymph Node, Mediastinal		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 11-16,10-14,8-3 ]		
Lymph Node, Mesenteric		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:12  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 232	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 719
	<b>DOSE:</b> 0.01 PPM	<b>DISP:</b> Moribund	<b>HISTO:</b> 13519

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 11-16,10-14,8-3 ]			
Mesentery		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-15 ]			
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Mild
		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-8 ]			
Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-4+11 ]			
Stomach, Forestomach		Acanthosis	Moderate
		Inflammation	Suppurative, Moderate
		Ulcer	Marked
[ Ulcer TGLS = 12,13-17+18 ]			
Stomach, Glandular		Inflammation	Suppurative, Moderate
Thymus		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-2 ]			
Urinary Bladder		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 9-13 ]			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:12  
**First Dose M/F:** NA / NA  
**Lab:** BNW

---

<b>ANIMAL ID:</b> 233	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 0.01 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13520

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx	Trachea
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**OBSERVATIONS**

Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
Nose		Pigmentation	Minimal
Stomach, Forestomach	Muscularis	Hypoplasia	Marked
	[ Hypoplasia TGLS = 2-8 ]		
Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLS = 1-7 ]		

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 234

TRT#: 3

SEX: Male

DAY ON TEST: 564

DOSE: 0.01 PPM

DISP: Dead

HISTO: 13521

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Pancreas
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Parathyroid Gland

AUTO PRECLUDES DIAG.

Intestine Large, Cecum Intestine Small, Ileum

OBSERVATIONS

Kidney		Nephropathy	Chronic, Moderate
Lung		Congestion	Marked
[ Congestion TGLS = 2-3 ]			
Mammary Gland		Galactocele	
[ Galactocele TGLS = 1-12 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Spleen		Fibrosis	Moderate
[ Fibrosis TGLS = 6-11 ]			
Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
[ Adenoma TGLS = 4-7 ]			
[ Atrophy TGLS = 5-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 235

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13522

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx Trachea

**OBSERVATIONS**

Brain		Hemorrhage	Moderate
[ Hemorrhage TGLS = 1-1 ]			
Liver	Biliar Tract	Hyperplasia	Marked
[ Leukemia Mononuclear TGLS = 5-4 ]		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4,9-5,3-12 ]			
[ Leukemia Mononuclear TGLS = 4,9-5,3-12 ]			
Nose		Pigmentation	Minimal
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
[ Adenoma TGLS = 6,10-7 ]			
[ Atrophy TGLS = 7-7 ]			
Thyroid Gland	Follicular Cel	Adenoma	
[ Adenoma TGLS = 8-2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 236

TRT#: 3

SEX: Male

DAY ON TEST: 600

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13523

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach, Forestomach	Stomach, Glandular	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Medulla	Bilateral	Hyperplasia	Moderate
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-6 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-6 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-6 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-6 ]			
Nose	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Suppurative, Mild
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-7 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 236

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 600

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13523

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Thymus

Leukemia Mononuclear

Thyroid Gland

C Cell

Hyperplasia

Minimal

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 237

TRT#: 3

SEX: Male

DAY ON TEST: 355

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13524

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mesenteric	Mammary Gland
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**OBSERVATIONS**

Adrenal Cortex		Hemorrhage	Minimal
Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Mild
	Artery	Mineralization	Mild
[ Hemorrhage TGLS = 1-3. ]			
Lymph Node, Mediastinal		Hemorrhage	Mild
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Testes	Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 238

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 635

HISTO: 13525

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Larynx	Mammary Gland	Pancreas	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Cortex		Hyperplasia	Minimal
Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-3 ]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 9-12 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 9-12 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 9-12 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 9-12 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 9-12 ]			
Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Minimal
	Nasolacrim Dct	Inflammation	Suppurative, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 238

**TRT#:** 3

**DOSE:** 0.01 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 635

**HISTO:** 13525

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Pituitary Gland

[ Cyst TGLS = 3-8 ]

Prostate

Spleen

[ Leukemia Mononuclear TGLS = 7-11 ]

Testes

Bilateral, Interstit Cell

Seminif Tub

[ Adenoma TGLS = 5-7 ]

[ Atrophy TGLS = 4-7 ]

Pigmentation

Cyst

Inflammation

Leukemia Mononuclear

Adenoma

Atrophy

Minimal

Suppurative, Minimal

Marked

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 239

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13526

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx Trachea

**OBSERVATIONS**

Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 2-4 ]			
Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
[ Alveolar/Bronchiolar Adenoma TGLS = 4-3 ]			
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 5-7 ]			
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Skin		Acanthosis	Marked
		Hyperkeratosis	Marked
[ Acanthosis TGLS = 3-11 ]			
[ Hyperkeratosis TGLS = 3-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 240

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 698

HISTO: 13527

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Parathyroid Gland	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
Heart		Cardiomyopathy	Moderate
[ Cardiomyopathy TGLS = 1-4 ]			
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-5 ]			
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung	Alveolus	Hemorrhage	Mild
	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
		Leukemia Mononuclear	
[ Hemorrhage TGLS = 2-3+11 ]			
[ Leukemia Mononuclear TGLS = 2-3+11 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-6 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-6 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-6 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 240

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 698

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13527

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Leukemia Mononuclear TGLS = 8-6 ]

Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 7-8 ]		
Prostate		Inflammation	Suppurative, Moderate
	[ Inflammation TGLS = 4-13 ]		
Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 3-12 ]		
Testes	Interstit Cell	Hyperplasia	Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 241

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13528

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx

Trachea

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**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Mild

[ Hemorrhage TGLS = 1-3 ]

Nose

Pigmentation

Minimal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 242

TRT#: 3

SEX: Male

DAY ON TEST: 628

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13529

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Liver	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Mammary Gland
Pancreas	Parathyroid Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Testes	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**OBSERVATIONS**

Adrenal Medulla	Bilateral	Hyperplasia	Moderate
Brain		Hydrocephalus	Marked
[ Hydrocephalus TGLS = 2-1 ]			
Kidney		Nephropathy	Chronic, Moderate
Lymph Node, Mesenteric		Hemorrhage	Mild
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 243

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 597

HISTO: 13530

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Mammary Gland	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Epididymis	Bilateral	Mesothelioma Malignant	
Heart		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
		[ Hepatodiaphragmatic Nodule TGLS = 11-4 ]	
		[ Leukemia Mononuclear TGLS = 12-4 ]	
Lung		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 4-3 ]	
Lymph Node	Axillary	Leukemia Mononuclear	
	Pancreatic	Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 3-13,2-17,13-14,5-15 ]	
		[ Leukemia Mononuclear TGLS = 3-13,2-17,13-14,5-15 ]	
Lymph Node, Bronchial		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 3-13,5-15,2-17,13-14 ]	
Lymph Node, Mandibular		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 3-13,5-15,2-17,13-14 ]	
Lymph Node, Mediastinal		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 3-13,2-17,13-14,5-15 ]	
Lymph Node, Mesenteric		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 243

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 597

HISTO: 13530

ORGAN AND ACCOUNTABLE SITE STATUS

[ Leukemia Mononuclear TGLS = 3-13,5-15,2-17,13-14 ]

Mesentery

Leukemia Mononuclear  
Mesothelioma Malignant  
Necrosis

Moderate

Fat

[ Mesothelioma Malignant TGLS = 8-12 ]

[ Necrosis TGLS = 8-12 ]

Nose

Pigmentation

Minimal

Pancreas

Leukemia Mononuclear

Pituitary Gland

Leukemia Mononuclear

Prostate

Inflammation

Suppurative, Mild

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 7-11 ]

Testes

Interstit Cell

Adenoma

Seminif Tub

Atrophy

Marked

Interstit Cell

Hyperplasia

Moderate

Bilateral

Mesothelioma Malignant

[ Adenoma TGLS = 10-7 ]

[ Atrophy TGLS = 10-7 ]

[ Mesothelioma Malignant TGLS = 9-7+16 ]

Thymus

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 6-15 ]

Thyroid Gland

C Cell

Adenoma

C Cell

Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:12  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 244	<b>TRT#:</b> 3	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 0.01 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13531

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx	Trachea
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**OBSERVATIONS**

Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Preputial Gland		Carcinoma	
[ Carcinoma TGLS = 1-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 2-7 ]			

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 245

TRT#: 3

SEX: Male

DAY ON TEST: 458

DOSE: 0.01 PPM

DISP: Interval Sacrifice

HISTO: 13532

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Prostate

Trachea

**OBSERVATIONS**

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 3-4. ]

Lung

Alveolus

Hemorrhage

Minimal

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Mild

[ Hemorrhage TGLS = 4-3. ]

Nose

Pigmentation

Minimal

Testes

Interstit Cell

Adenoma

[ Adenoma TGLS = 2-7. ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:12  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 246	<b>TRT#:</b> 3 <b>DOSE:</b> 0.01 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 732 <b>HISTO:</b> 13533
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx	Trachea
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**OBSERVATIONS**

Kidney		Nephroblastoma Nephropathy	Chronic, Moderate
[ Nephroblastoma TGLS = 3-11+12 ] [ Nephropathy TGLS = 4-5 ]			
Lung		Leukemia Mononuclear	
Nose		Hemorrhage Pigmentation	Minimal Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Prostate		Inflammation	Suppurative, Marked
Spleen		Fibrosis Leukemia Mononuclear	Moderate
[ Fibrosis TGLS = 5-13 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 2-7 ]			

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 247

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13534

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Lung

Trachea

---

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Marked

[ Nephropathy TGLS = 2-5 ]

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 4-8 ]

Spleen

Fibrosis

Marked

[ Fibrosis TGLS = 1-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 248

TRT#: 3

SEX: Male

DAY ON TEST: 565

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13535

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Pancreas	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
Blood Vessel	Mesent Artery	Developmental Malformation	
[ Developmental Malformation TGLS = 5-13 ]			
Bone Marrow		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Mild
Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 7-12 ]			
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lung	Alveolus	Hemorrhage	Minimal
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-3 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7,2-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7,2-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7,2-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7,2-2 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 248

**TRT#:** 3

**DOSE:** 0.01 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 565

**HISTO:** 13535

**ORGAN AND ACCOUNTABLE SITE STATUS**

Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Prostate		Inflammation	Suppurative, Moderate
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-11 ]			
Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Marked
[ Adenoma TGLS = 9-7 ]			
[ Hyperplasia TGLS = 10-7 ]			
Thymus		Leukemia Mononuclear	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 249

TRT#: 3

SEX: Male

DAY ON TEST: 649

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13536

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Urinary Bladder	

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Epididymis		Mesothelioma Malignant	Metastatic (Testes)
Harderian Gland	Duct	Carcinoma	
[ Carcinoma TGLS = 4,5,6-12+15+10 ]			
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Lung		Carcinoma	Metastatic (Zymbal'S Gland)
	Alveolus	Hemorrhage	Mild
[ Carcinoma TGLS = 9-3+11 ]		Leukemia Mononuclear	
[ Hemorrhage TGLS = 8-3+11 ]			
Nose		Hemorrhage	Mild
	Respirat Epith	Hyperplasia	Mild
	Respirat Epith	Metaplasia	Squamous, Mild
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-4 ]			
Testes	Interstit Cell	Adenoma	Multiple

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 249

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 649

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13536

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Bilateral

Mesothelioma Malignant

[ Adenoma TGLS = 2,3-7+14 ]

[ Mesothelioma Malignant TGLS = 7-13 ]

Trachea

Inflammation

Suppurative, Mild

Zymbal's Gland

Carcinoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 250

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 615

HISTO: 13537

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Moderate
Blood Vessel		Polyarteritis	Diffuse, Marked
Bone Marrow		Myelofibrosis	Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Mediastinal		Pigmentation	Moderate
Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Pituitary Gland		Hemorrhage	Marked
[ Hemorrhage TGLS = 2-8 ]		Leukemia Mononuclear	
Prostate		Inflammation	Suppurative, Moderate
Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
Testes	Interstit Cell	Adenoma	
[ Adenoma TGLS = 4-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 251

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13538

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Eye

Larynx

Nose

Trachea

---

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

[ Nephropathy TGLS = 2-5. ]

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 3-3. ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 252

TRT#: 3

DOSE: 0.01 PPM

SEX: Male

DISP: Dead

DAY ON TEST: 704

HISTO: 13539

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Lung	Mammary Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Adrenal Medulla	Parathyroid Gland
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OBSERVATIONS

Epididymis	Bilateral	Mesothelioma Malignant	
[ Mesothelioma Malignant TGLS = 7-14+15 ]			
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-2 ]			
[ Pigmentation TGLS = 10-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-2 ]			
Mesentery		Mesothelioma Malignant	
[ Mesothelioma Malignant TGLS = 2,6,11-17+13+8 ]			
Nose		Foreign Body	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 252

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 704

**DOSE:** 0.01 PPM

**DISP:** Dead

**HISTO:** 13539

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
Pancreas		Mesothelioma Malignant	
Spleen		Fibrosis	Marked
		Leukemia Mononuclear	
		Mesothelioma Malignant	
		Necrosis	Marked
	[ Fibrosis TGLS = 3-12 ]		
	[ Mesothelioma Malignant TGLS = 3-12 ]		
	[ Necrosis TGLS = 4-11 ]		
Stomach, Forestomach		Mesothelioma Malignant	
	[ Mesothelioma Malignant TGLS = 11-8 ]		
Stomach, Glandular		Mesothelioma Malignant	
	[ Mesothelioma Malignant TGLS = 11-8 ]		
Testes	Bilateral, Interstit Cell	Adenoma	
	Bilateral	Mesothelioma Malignant	
	[ Adenoma TGLS = 8-7+16 ]		
	[ Mesothelioma Malignant TGLS = 9-7+16 ]		
Tooth		Inflammation	Suppurative, Marked

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 253

TRT#: 3

SEX: Male

DAY ON TEST: 695

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13540

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Mammary Gland	Pancreas	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
	Bilateral	Pheochromocytoma Benign	
Brain		Hemorrhage	Marked
		Leukemia Mononuclear	
Note: LESION IS IN CEREBELLUM,NOT CEREBRUM. [ Hemorrhage TGLS = 4-1 ]			
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Larynx		Foreign Body	Moderate
		Inflammation	Suppurative, Mild
Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 2-4 ]			
Lung	Alveolus	Hemorrhage	Moderate
		Leukemia Mononuclear	
		Leukemia Mononuclear	
Lymph Node, Bronchial			
[ Leukemia Mononuclear TGLS = 9-13,5-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 9-13,5-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 9-13,5-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 253

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 695

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13540

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 9-13,5-2 ]

Mesentery	Fat	Necrosis	Moderate
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[ Necrosis TGLS = 6-12 ]

Nose		Pigmentation	Minimal
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Pituitary Gland	Pars Distalis	Adenoma	
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Spleen		Leukemia Mononuclear	
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[ Leukemia Mononuclear TGLS = 1-11 ]

Testes	Bilateral, Interstit Cell	Adenoma	
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[ Adenoma TGLS = 7-7 ]

Thymus		Leukemia Mononuclear	
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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 254

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13541

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 2-3. ]

Nose

Respirat Epith

Hemorrhage

Mild

Hyperplasia

Mild

Pigmentation

Minimal

Testes

Interstit Cell

Adenoma

[ Adenoma TGLS = 1-7. ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 255

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13542

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Larynx

Lymph Node, Bronchial

Trachea

OBSERVATIONS

Epididymis

Bilateral

Mesothelioma Malignant

Kidney

Nephropathy

Chronic, Moderate

[ Nephropathy TGLS = 7-5 ]

Lung

Mesothelioma Malignant

Metastatic (Testes)

Mesentery

Mesothelioma Malignant

[ Mesothelioma Malignant TGLS = 2-11 ]

Nose

Respirat Epith

Hyperplasia

Minimal

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 6-8 ]

Testes

Bilateral, Interstit Cell

Adenoma

Bilateral

Mesothelioma Malignant

[ Adenoma TGLS = 5-7 ]

[ Mesothelioma Malignant TGLS = 4-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 256

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13543

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Seminal Vesicle

Trachea

**OBSERVATIONS**

Lung

Leukemia Mononuclear

Lymph Node

Pancreatic

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-12 ]

Mesentery

Fat

Necrosis

Marked

[ Necrosis TGLS = 3-11 ]

Nose

Pigmentation

Minimal

Preputial Gland

Cyst

Hyperplasia

Marked

Inflammation

Suppurative, Marked

[ Cyst TGLS = 1-13 ]

[ Hyperplasia TGLS = 1-13 ]

[ Inflammation TGLS = 1-13 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 2-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 257

TRT#: 3

SEX: Male

DAY ON TEST: 726

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13544

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Liver	Lung
Lymph Node, Bronchial	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Trachea	Urinary Bladder		

**MISSING**

Lymph Node, Mandibular	Lymph Node, Mediastinal	Thymus
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**OBSERVATIONS**

Brain		Compression	
		Hydrocephalus	Marked
[ Hydrocephalus TGLS = 4-1 ]			
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 3-5 ]			
Mesentery		Inflammation	Granulomatous, Marked
[ Inflammation TGLS = 2-11 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Prostate		Inflammation	Suppurative, Mild
Testes		Mesothelioma Malignant	
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 258

TRT#: 3

SEX: Male

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13545

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Leukemia Mononuclear

Lymph Node, Mesenteric

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 5-14 ]

Mesentery

Fat

Necrosis

Marked

[ Necrosis TGLS = 4-13 ]

Nose

Pigmentation

Minimal

Spleen

Fibrosis

Moderate

Leukemia Mononuclear

[ Fibrosis TGLS = 7-12 ]

[ Leukemia Mononuclear TGLS = 1-11+12 ]

Testes

Bilateral, Interstit Cell

Adenoma

Seminif Tub

Atrophy

Marked

[ Adenoma TGLS = 2-7 ]

[ Atrophy TGLS = 3-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 259

TRT#: 3

SEX: Male

DAY ON TEST: 458

DOSE: 0.01 PPM

DISP: Interval Sacrifice

HISTO: 13546

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Liver

Clear Cell Focus

[ Clear Cell Focus TGLS = 2-4 ]

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 1-3. ]

Nose

Hemorrhage

Mild

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

---

**ANIMAL ID:** 260

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13547

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Trachea

---

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Mild

[ Hemorrhage TGLS = 1-3. ]

Nose

Nasolacrim Dct

Hemorrhage

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 401

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.05 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13368

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Trachea

---

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Nose

Nasolacrim Dct

Hemorrhage

Mild

Hemorrhage

Mild

Pigmentation

Minimal

Testes

Interstit Cell

Adenoma

Multiple

---

[ Adenoma TGLS = 1-7. ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 402

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Dead

DAY ON TEST: 664

HISTO: 13369

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Epididymis	Esophagus	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Islets, Pancreatic	Mammary Gland
Parathyroid Gland	Pituitary Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Thyroid Gland	Urinary Bladder		

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Small, Ileum	Intestine Small, Jejunum	Larynx
Trachea			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain		Hemorrhage	Marked
		Leukemia Mononuclear	
[ Hemorrhage TGLS = 3-1 ]			
[ Leukemia Mononuclear TGLS = 3-1 ]			
Heart		Cardiomyopathy	Mild
Kidney		Leukemia Mononuclear	
Liver	Hepatocyte	Hyperplasia	Marked
		Leukemia Mononuclear	
Note: HYPERPL SECONDARY TO MCL.			
[ Hyperplasia TGLS = 7-13 ]			
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-3+11 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 402

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 664

**DOSE:** 0.05 PPM

**DISP:** Dead

**HISTO:** 13369

**ORGAN AND ACCOUNTABLE SITE STATUS**

Nose		Pigmentation	Minimal
Pancreas	Acinus	Hyperplasia	Moderate
Prostate		Inflammation	Suppurative, Moderate
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Testes	Interstit Cell	Adenoma	
[ Adenoma TGLS = 2-7 ]			
Thymus		Leukemia Mononuclear	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 403

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 723

HISTO: 13370

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Brain		Compression	
		Hydrocephalus	Moderate
[ Compression TGLS = 4-1 ]			
[ Hydrocephalus TGLS = 5-1 ]			
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Prostate		Inflammation	Suppurative, Mild
Skin		Fibroma	
[ Fibroma TGLS = 2-11 ]			
Spleen		Leukemia Mononuclear	
Testes	Seminif Tub	Atrophy	Marked
	Interstit Cell	Hyperplasia	Mild
[ Atrophy TGLS = 3-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 404

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 709

HISTO: 13371

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Parathyroid Gland
Preputial Gland	Salivary Glands	Skin	Stomach, Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Minimal
Brain		Compression	
		Hydrocephalus	Mild
[ Hydrocephalus TGLS = 5,6-1 ]			
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Prostate		Inflammation	Suppurative, Mild
Seminal Vesicle	Epithelium	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 404

**TRT#:** 5

**DOSE:** 0.05 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 709

**HISTO:** 13371

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Spleen

[ Fibrosis TGLS = 8-4 ]

[ Leukemia Mononuclear TGLS = 3-4 ]

Stomach, Forestomach

Inflammation

Fibrosis

Leukemia Mononuclear

Acanthosis

Hyperkeratosis

Suppurative, Minimal

Moderate

Mild

Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 405

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13372

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Larynx

Stomach, Glandular

Trachea

OBSERVATIONS

Adrenal Medulla

Bilateral

Pheochromocytoma Benign

Brain

Compression

Hydrocephalus

Mild

[ Compression TGLS = 6-1 ]

[ Hydrocephalus TGLS = 7-1 ]

Eye

Cataract

Mild

[ Cataract TGLS = 1-11 ]

Kidney

Nephropathy

Chronic, Marked

[ Nephropathy TGLS = 3-5 ]

Lung

Hemangiosarcoma

Metastatic (Uncertain Primary Site)

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Moderate

Leukemia Mononuclear

Peribronchiolr

Pigmentation

Minimal

[ Hemangiosarcoma TGLS = 5-3 ]

Lymph Node

Renal

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-12 ]

Nose

Hemorrhage

Moderate

Nasolacrim Dct

Inflammation

Suppurative, Mild

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

Leukemia Mononuclear

[ Adenoma TGLS = 2-8 ]

Stomach, Forestomach

Acanthosis

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 8-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 406

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13373

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Islets, Pancreatic

Larynx

Trachea

OBSERVATIONS

Liver Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-4 ]

Lung Alveolar/Bronchiolar Adenoma

Alveolus Hemorrhage Minimal

Leukemia Mononuclear

Note: A/B ADENOMA IS IN LEFT LOBE.

[ Hemorrhage TGLS = 5-11 ]

Nose Pigmentation Mild

Pancreas Acinus Atrophy Moderate

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 6-4 ]

Pituitary Gland Pars Distalis Adenoma

[ Adenoma TGLS = 1-8 ]

Spleen Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 2-4 ]

Testes Bilateral, Interstit Cell Adenoma

[ Adenoma TGLS = 4-7 ]

Thyroid Gland C Cell Adenoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 407

TRT#: 5

SEX: Male

DAY ON TEST: 710

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13374

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Thyroid Gland	Trachea	Urinary Bladder

**OBSERVATIONS**

Adrenal Cortex		Hyperplasia	Moderate
Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Liver		Clear Cell Focus	
		Leukemia Mononuclear	
		[ Clear Cell Focus TGLS = 3-4 ]	
		[ Leukemia Mononuclear TGLS = 5-4 ]	
Lung		Leukemia Mononuclear	
Lymph Node	Renal	Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 4-12,7-7 ]	
Lymph Node, Bronchial		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 4-12,7-7 ]	
Lymph Node, Mandibular		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 4-12,7-7 ]	
Lymph Node, Mediastinal		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 4-12,7-7 ]	
Lymph Node, Mesenteric		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 4-12,7-7 ]	
Nose		Hemorrhage	Mild
		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Mild
Parathyroid Gland		Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 407

**TRT#:** 5

**DOSE:** 0.05 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 710

**HISTO:** 13374

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Pituitary Gland  
[ Adenoma TGLS = 2-8 ]

Pars Distalis

Adenoma

Prostate

Inflammation

Suppurative, Mild

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-11 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 6-7 ]

Thymus

Leukemia Mononuclear

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 408

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13375

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**INSUFFICIENT TISSUE**

Larynx

**OBSERVATIONS**

Eye		Cataract	Mild
[ Cataract TGLS = 1-14 ]			
Liver	Hepatocyte	Hyperplasia Leukemia Mononuclear	Marked
[ Hyperplasia TGLS = 6-4 ]			
Lung	Alveolar Epith Alveolus	Hyperplasia Infiltration Cellular	Moderate Histiocyte, Multifocal, Marked
[ Hyperplasia TGLS = 5-11 ]			
[ Infiltration Cellular TGLS = 5-11 ]			
Lymph Node	Renal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-5 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 2-13 ]			
Nose		Pigmentation	Mild
Pharynx		Developmental Malformation	
Note: SIMILAR TO FORDYCE'S GRANULES IN HUMAN ORAL MUCOSA. Note: FOCUS OF CYSTIC PROLIF SEBACEOUS CELLS RESEMBLING			
[ Developmental Malformation TGLS = 10-15 ]			
Preputial Gland		Cyst	
[ Cyst TGLS = 9-7 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4,7-12 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 3-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 409

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13376

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Marked

[ Nephropathy TGLS = 3-5 ]

Lung

Alveolus

Hemorrhage

Minimal

Alveolar Epith

Hyperplasia

Moderate

Mesentery

Fat

Necrosis

Marked

[ Necrosis TGLS = 2-11 ]

Nose

Pigmentation

Mild

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 1-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 410

TRT#: 5

SEX: Male

DAY ON TEST: 506

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13377

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Kidney	Nephropathy	Chronic, Minimal
Liver	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]		
Lung	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-3 ]		
Lymph Node, Bronchial	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-2 ]		
Lymph Node, Mandibular	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-2 ]		
Lymph Node, Mediastinal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-2 ]		
Lymph Node, Mesenteric	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-2 ]		
Nose	Pigmentation	Minimal
Prostate	Inflammation	Suppurative, Mild
Seminal Vesicle	Inflammation	Suppurative, Mild
Spleen	Ectopic Tissue	
	Leukemia Mononuclear	
[ Ectopic Tissue TGLS = 6-11 ]		
[ Leukemia Mononuclear TGLS = 2-11 ]		
Thymus	Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 410

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 506

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13377

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 411

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13378

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Minimal

[ Hemorrhage TGLS = 1-3. ]

Nose

Nasolacrim Dct

Hemorrhage

Mild

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 412

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13379

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Artery

Mineralization

Minimal

[ Hemorrhage TGLS = 1-3+11. ]

Nose

Nasolacrim Dct

Hemorrhage

Mild

Hemorrhage

Mild

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 413

TRT#: 5

SEX: Male

DAY ON TEST: 666

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13380

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Moderate
		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Moderate
Liver		Angiectasis	Marked
		Leukemia Mononuclear	
[ Angiectasis TGLS = 3-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 414

TRT#: 5

SEX: Male

DAY ON TEST: 597

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13381

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Pancreas	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**INSUFFICIENT TISSUE**

Intestine Large, Rectum	Pituitary Gland
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**OBSERVATIONS**

Brain		Hydrocephalus	Marked
		Mineralization	Moderate
		Necrosis	Mild
[ Hydrocephalus TGLS = 4-1 ]			
Kidney		Nephropathy	Chronic, Minimal
Liver		Basophilic Focus	
Lung	Alveolus	Hemorrhage	Minimal
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
Nose		Pigmentation	Minimal
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 1-11 ]			
Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[ Adenoma TGLS = 2-7 ]			
[ Hyperplasia TGLS = 5-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 415

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13382

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx Trachea

**OBSERVATIONS**

Kidney		Cyst	
[ Cyst TGLS = 4-5 ]			
Lung	Alveolus	Hemorrhage	Minimal
[ Hemorrhage TGLS = 7-3 ]		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12 ]			
Nose		Pigmentation	Mild
Pancreas		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[ Hyperplasia TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2,3-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 5-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 416

TRT#: 5

SEX: Male

DAY ON TEST: 506

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13383

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Ear	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Mild
Kidney		Nephropathy	Chronic, Minimal
Larynx		Inflammation	Suppurative, Mild
		Metaplasia	Squamous, Mild
Lung	Alveolus	Hemorrhage	Mild
Nose		Foreign Body	Mild
		Inflammation	Suppurative, Minimal
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Mild
Testes	Interstit Cell	Hyperplasia	Moderate
Zymbal's Gland		Carcinoma	

[ Carcinoma TGLS = 1-11 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 417

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13384

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx Trachea

**OBSERVATIONS**

Islets, Pancreatic

[ Adenoma TGLS = 8-4 ]

Adenoma

Liver

[ Leukemia Mononuclear TGLS = 4,6-4+12 ]

Leukemia Mononuclear

Lung

Alveolus

Alveolar Epith

Hemorrhage

Mild

Hyperplasia

Moderate

Leukemia Mononuclear

[ Hemorrhage TGLS = 5-11 ]

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

Cyst

[ Cyst TGLS = 7-8 ]

Skin

Cyst Epithelial Inclusion

[ Cyst Epithelial Inclusion TGLS = 3-14 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-13 ]

Testes

Interstit Cell

Adenoma

[ Adenoma TGLS = 2-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 418

TRT#: 5

SEX: Male

DAY ON TEST: 233

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13385

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Kidney
Larynx	Liver	Lymph Node, Bronchial	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Pancreas	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Lung	Alveolus	Hemorrhage	Mild
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-7. ]			
Nose		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 419

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 724

HISTO: 13386

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Epididymis	Esophagus
Islets, Pancreatic	Larynx	Mammary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Heart		Leukemia Mononuclear	
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 17-14 ]			
[ Leukemia Mononuclear TGLS = 17-14 ]			
Intestine Large, Cecum		Leukemia Mononuclear	
Intestine Large, Colon		Leukemia Mononuclear	
Intestine Large, Rectum		Leukemia Mononuclear	
Intestine Small, Duodenum		Leukemia Mononuclear	
Intestine Small, Ileum		Leukemia Mononuclear	
Intestine Small, Jejunum		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
[ Leukemia Mononuclear TGLS = 8-5 ]			
[ Nephropathy TGLS = 8-5 ]			
Liver		Clear Cell Focus	
		Hepatocellular Adenoma	
	Biliar Tract	Hyperplasia	Marked
		Leukemia Mononuclear	
[ Hepatocellular Adenoma TGLS = 18-4 ]			
[ Leukemia Mononuclear TGLS = 11-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 419

TRT#: 5

SEX: Male

DAY ON TEST: 724

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13386

ORGAN AND ACCOUNTABLE SITE STATUS

[ Leukemia Mononuclear TGLS = 2-3+13 ]		Leukemia Mononuclear	
Lymph Node	Iliac	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-18,9-19,15-12,16-3,20-7,19-16 ]			
[ Leukemia Mononuclear TGLS = 10-18,9-19,15-12,16-3,20-7,19-16 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-18,9-19,15-12,16-3,19-16,20-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-18,9-19,15-12,16-3,20-7,19-16 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-18,9-19,15-12,16-3,20-7,19-16 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-18,9-19,15-12,16-3,20-7,19-16 ]			
Mesentery		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7,23-20+21 ]			
Nose		Pigmentation	Minimal
Pancreas		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-21 ]			
Parathyroid Gland		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 14-2 ]			
Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
Skeletal Muscle		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 12,13-11+17 ]			
Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[ Fibrosis TGLS = 4-15 ]			
[ Leukemia Mononuclear TGLS = 3-15 ]			
Stomach, Forestomach		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 22-8 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 419

**TRT#:** 5

**DOSE:** 0.05 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 724

**HISTO:** 13386

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Stomach, Glandular

[ Leukemia Mononuclear TGLS = 22-8 ]

Leukemia Mononuclear

Testes

Interstit Cell

Interstit Cell

Adenoma

Hyperplasia

Moderate

[ Adenoma TGLS = 6-7 ]

Thymus

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-2+12 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

---

**ANIMAL ID:** 420

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.05 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13387

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Trachea

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**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Mild

[ Hemorrhage TGLS = 1-3. ]

Nose

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 421

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 516

HISTO: 13388

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea

OBSERVATIONS

Adrenal Cortex		Carcinoma	
[ Carcinoma TGLS = 5,6-12+13 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
		Leukemia Mononuclear	
	Peribronchiolr	Pigmentation	Minimal
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Foreign Body	Mild
		Pigmentation	Mild
Seminal Vesicle		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11 ]			
Testes	Interstit Cell	Adenoma	Multiple
[ Adenoma TGLS = 3-7 ]			
Urinary Bladder		Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 422

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13389

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Alveolar Epith

Hyperplasia

Minimal

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Mild

Artery

Mineralization

Minimal

[ Hemorrhage TGLS = 1-3 ]

Nose

Nasolacrim Dct

Hemorrhage

Mild

Respirat Epith

Hyperplasia

Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 423

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.05 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13390

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Trachea

---

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Artery

Mineralization

Minimal

[ Hemorrhage TGLS = 1-3. ]

Nose

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 424

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13391

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Bronchiole

Pigmentation

Minimal

Sarcoma

Metastatic (Skeletal Muscle)

[ Hemorrhage TGLS = 2-11 ]

Nose

Nasolacrim Dct

Hemorrhage

Mild

Pigmentation

Minimal

Sarcoma

Skeletal Muscle

[ Sarcoma TGLS = 1-14. ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 425

TRT#: 5

SEX: Male

DAY ON TEST: 458

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13392

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

**OBSERVATIONS**

Lung	Alveolus	Hemorrhage	Minimal
	Artery	Mineralization	Minimal
[ Hemorrhage TGLS = 1-3. ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
		Pigmentation	Minimal
Trachea		Inflammation	Chronic, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 426

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 701

HISTO: 13393

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lung	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Preputial Gland	Salivary Glands	Seminal Vesicle	Stomach, Forestomach
Stomach, Glandular	Testes	Thymus	Trachea
Urinary Bladder			

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
Brain		Hemorrhage	Minimal
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 2-12 ]		Leukemia Mononuclear	
Lymph Node, Mediastinal		Carcinoma	Metastatic (Thyroid Gland)
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Prostate		Inflammation	Suppurative, Mild
Skin		Acanthosis	Marked
[ Acanthosis TGLS = 4-11 ]		Hyperkeratosis	Marked
[ Hyperkeratosis TGLS = 4-11 ]			
Spleen		Leukemia Mononuclear	
Thyroid Gland	C Cell	Carcinoma	
[ Carcinoma TGLS = 1-2 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 426

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 701

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13393

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 427

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13394

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Liver Clear Cell Focus

Lung Alveolus Hemorrhage Minimal

Nose Pigmentation Mild

Pituitary Gland Pars Distalis Adenoma

[ Adenoma TGLS = 6-8 ]

Skin Neurofibrosarcoma

[ Neurofibrosarcoma TGLS = 1-11 ]

Testes Bilateral, Interstit Cell Adenoma  
Seminif Tub Atrophy Moderate

[ Adenoma TGLS = 4,5-7 ]

[ Atrophy TGLS = 3-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 428

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13395

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Liver

Hepatocyte

Hyperplasia

Marked

Leukemia Mononuclear

[ Hyperplasia TGLS = 8-12 ]

[ Leukemia Mononuclear TGLS = 6,7,8-4+11+12 ]

Lung

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 5-3 ]

Lymph Node, Bronchial

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 9-15,2-14 ]

Lymph Node, Mandibular

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 9-15,2-14 ]

Lymph Node, Mediastinal

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 9-15,2-14 ]

Lymph Node, Mesenteric

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 9-15,2-14 ]

Nose

Foreign Body

Marked

Respirat Epith

Hyperplasia

Moderate

Inflammation

Suppurative, Mild

Skin

Cyst Epithelial Inclusion

[ Cyst Epithelial Inclusion TGLS = 1-16 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-13 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 4-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 429

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 0.05 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13396

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx	Liver	Lung	Stomach, Glandular
Trachea			

**OBSERVATIONS**

Nose		Pigmentation	Mild
Pituitary Gland		Cyst	
[ Cyst TGLS = 5-8 ]			
Spleen		Fibrosis	Moderate
[ Fibrosis TGLS = 3-11 ]			
Stomach, Forestomach	Muscularis	Hypoplasia	Marked
[ Hypoplasia TGLS = 6-8 ]			
Testes	Interstit Cell	Adenoma	
[ Adenoma TGLS = 2-7 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 430

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 712

HISTO: 13397

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Epididymis	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Liver
Lymph Node, Mandibular	Lymph Node, Mediastinal	Mammary Gland	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Testes	Thymus
Thyroid Gland	Trachea		

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Marked
Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Blood Vessel		Polyarteritis	Diffuse, Marked
	[ Polyarteritis TGLS = 1,2,6,12-11+12+13+15 ]		
Brain		Compression	
		Hydrocephalus	Marked
	[ Compression TGLS = 7-1 ]		
	[ Hydrocephalus TGLS = 8-1 ]		
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Lung	Alveolar Epith	Hyperplasia	Minimal
Lymph Node	Renal	Hyperplasia	Lymphoid, Marked
	[ Hyperplasia TGLS = 10-5 ]		
Lymph Node, Bronchial		Hemorrhage	Mild
	[ Hemorrhage TGLS = 9-3,11-6 ]		
Lymph Node, Mesenteric		Hemorrhage	Marked
	[ Hemorrhage TGLS = 9-3,11-6 ]		
Mesentery	Fat	Necrosis	Marked
	[ Necrosis TGLS = 4-14 ]		
Nose	Respirat Epith	Hyperplasia	Minimal
		Pigmentation	Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 430

**TRT#:** 5

**DOSE:** 0.05 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 712

**HISTO:** 13397

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Pancreas	Artery	Inflammation	Marked
Pituitary Gland [ Adenoma TGLS = 3-8 ]	Pars Distalis	Adenoma	
Prostate	Epithelium	Hyperplasia Inflammation	Mild Suppurative, Moderate
Spleen [ Fibrosis TGLS = 5-4 ]		Fibrosis	Moderate
Urinary Bladder		Inflammation	Suppurative, Moderate

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 431

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Dead

DAY ON TEST: 547

HISTO: 13398

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Harderian Gland	Heart
Islets, Pancreatic	Liver	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum		

OBSERVATIONS

Brain		Compression	
		Hemorrhage	Moderate
		Hydrocephalus	Marked
[ Compression TGLS = 4-1 ]			
[ Hydrocephalus TGLS = 5-1 ]			
Eye		Cataract	Mild
[ Cataract TGLS = 2-12 ]			
Kidney		Nephropathy	Chronic, Minimal
Larynx		Metaplasia	Squamous, Minimal
Lung		Congestion	Marked
[ Congestion TGLS = 1-3 ]			
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Prostate		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:12  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 432	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 0.05 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13399

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Trachea

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**OBSERVATIONS**

Larynx		Inflammation	Suppurative, Moderate
Liver		Leukemia Mononuclear	
Lung		Alveolar/Bronchiolar Adenoma	
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 1-11 ]			
Nose		Pigmentation	Minimal
Spleen		Fibrosis	Moderate
[ Fibrosis TGLS = 4-4 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 2-7 ]			

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 433

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.05 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13400

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx

Trachea

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**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 1-3 ]

Nose

Nasolacrim Dct

Hemorrhage

Mild

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 434

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13401

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Lung

Lymph Node, Mandibular

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Marked

[ Nephropathy TGLS = 3-5 ]

Nose

Hemorrhage

Moderate

Respirat Epith

Hyperplasia

Mild

Pigmentation

Mild

Testes

Interstit Cell

Adenoma

Seminif Tub

Atrophy

Marked

Arteriole

Inflammation

Marked

[ Adenoma TGLS = 1-7 ]

[ Atrophy TGLS = 2-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 435

TRT#: 5

SEX: Male

DAY ON TEST: 365

DOSE: 0.05 PPM

DISP: Dead

HISTO: 13402

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Esophagus

Preputial Gland

Thyroid Gland

**MISSING**

Parathyroid Gland

**AUTO PRECLUDES DIAG.**

Adrenal Cortex

Adrenal Medulla

Bone

Bone Marrow

Brain

Epididymis

Heart

Intestine Large, Cecum

Intestine Large, Colon

Intestine Large, Rectum

Intestine Small, Duodenum

Intestine Small, Ileum

Intestine Small, Jejunum

Islets, Pancreatic

Kidney

Larynx

Liver

Lymph Node, Bronchial

Lymph Node, Mandibular

Lymph Node, Mediastinal

Lymph Node, Mesenteric

Mammary Gland

Nose

Pancreas

Pituitary Gland

Prostate

Salivary Glands

Seminal Vesicle

Spleen

Stomach, Forestomach

Stomach, Glandular

Testes

Thymus

Trachea

Urinary Bladder

**OBSERVATIONS**

Lung

Alveolus

Inflammation

Suppurative, Marked

Skin

Sarcoma

[ Sarcoma TGLS = 1-2+11+12 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 436

TRT#: 5

SEX: Male

DAY ON TEST: 565

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13403

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Mammary Gland	Pancreas	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Testes	Thyroid Gland
Trachea	Urinary Bladder		

**OBSERVATIONS**

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Epididymis		Granuloma Sperm	Moderate
[ Granuloma Sperm TGLS = 8-13 ]			
Heart		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-4 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-3 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-12 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-12 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-12 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-12 ]			
Mesentery	Fat	Necrosis	Mild
[ Necrosis TGLS = 4-14 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 436

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 565

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13403

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Adenoma TGLS = 2-8 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-11 ]

Thymus

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 437

TRT#: 5

SEX: Male

DAY ON TEST: 680

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13404

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lung	Lymph Node, Bronchial	Lymph Node, Mesenteric	Mammary Gland
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

**OBSERVATIONS**

Adrenal Medulla	Bilateral	Hyperplasia	Moderate
	Bilateral	Pheochromocytoma Benign	
Bone		Inflammation	Suppurative, Marked
Note: INFLAM ADJACENT TO TUMOR IN PHARYNX/TOOTH SOCKET.			
Bone Marrow		Myelofibrosis	Mild
Brain		Granular Cell Tumor Malignant	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
Lymph Node, Mediastinal		Leukemia Mononuclear	
Nose		Foreign Body	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Pigmentation	Minimal
Pharynx		Papilloma	
[ Papilloma TGLS = 3-10 ]			
Spleen		Leukemia Mononuclear	
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-7 ]			
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 438

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 0.05 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13405

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Lung

Skin

Trachea

**OBSERVATIONS**

Lymph Node, Mesenteric

[ Hemorrhage TGLS = 4-6 ]

Hemorrhage

Moderate

Nose

Respirat Epith

Hyperplasia

Minimal

Pigmentation

Minimal

Preputial Gland

[ Carcinoma TGLS = 1-12 ]

Carcinoma

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 3-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 439

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 541

HISTO: 13406

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Epididymis	Esophagus	Eye
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Pancreas	Parathyroid Gland
Pituitary Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
Bone Marrow		Leukemia Mononuclear	
Brain		Hemorrhage	Minimal
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
[ Leukemia Mononuclear TGLS = 9-5 ]			
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4,1-2 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4,1-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4,1-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4,1-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4,1-2 ]			
Nose		Pigmentation	Minimal

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 439

**TRT#:** 5

**DOSE:** 0.05 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 541

**HISTO:** 13406

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Prostate		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3,4-11 ]			
Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[ Adenoma TGLS = 8-7 ]			
Thymus		Leukemia Mononuclear	

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 440

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 712

HISTO: 13407

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Lung	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Pancreas	Preputial Gland	Prostate	Salivary Glands
Skin	Spleen	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
Islets, Pancreatic		Adenoma	
Kidney		Cyst	
		Nephropathy	Chronic, Marked
			[ Cyst TGLS = 2-11 ]
			[ Nephropathy TGLS = 2-5 ]
Liver		Basophilic Focus	
Lymph Node	Pancreatic	Hemorrhage	Marked
	Renal	Hemorrhage	Marked
			[ Hemorrhage TGLS = 3-14,5-13 ]
			[ Hemorrhage TGLS = 3-14,5-13 ]
Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
		Pigmentation	Minimal
Parathyroid Gland		Hyperplasia	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
			[ Adenoma TGLS = 4-8 ]
Seminal Vesicle	Epithelium	Hyperplasia	Mild
Stomach, Forestomach		Acanthosis	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 440

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 712

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13407

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Acanthosis TGLS = 8-8+12 ]

[ Erosion TGLS = 8-8+12 ]

Testes

[ Hyperplasia TGLS = 1-7 ]

Interstit Cell

Erosion

Hyperplasia

Marked

Moderate

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 441

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13408

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

[ Nephropathy TGLS = 1-5 ]

Lung

Alveolus

Hemorrhage

Minimal

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 5-8 ]

Prostate

Inflammation

Suppurative, Marked

[ Inflammation TGLS = 2-11 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 3-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 442

TRT#: 5

SEX: Male

DAY ON TEST: 704

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13409

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Mammary Gland	Pancreas	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Thymus	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla	Bilateral	Hyperplasia	Mild
Islets, Pancreatic		Leukemia Mononuclear	
Kidney		Adenoma	
Larynx		Nephropathy	Chronic, Moderate
Liver		Metaplasia	Squamous, Minimal
[ Leukemia Mononuclear TGLS = 6-4 ]		Leukemia Mononuclear	
Lung	Alveolar Epith	Hyperplasia	Minimal
[ Hyperplasia TGLS = 4-12 ]		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2,3,4-11+12+13 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-2 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 442

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 704

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13409

**ORGAN AND ACCOUNTABLE SITE STATUS**

Stomach, Forestomach		Acanthosis	Moderate
		Edema	Moderate
		Hyperkeratosis	Moderate
	[ Acanthosis TGLS = 8-8 ]		
	[ Edema TGLS = 8,9-8 ]		
	[ Hyperkeratosis TGLS = 8-8 ]		
Stomach, Glandular		Edema	Moderate
	[ Edema TGLS = 8,9-8 ]		
Testes	Interstit Cell	Adenoma	
	[ Adenoma TGLS = 1-7 ]		
Thyroid Gland	C Cell	Adenoma	
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 443

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13410

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Lung Trachea

**OBSERVATIONS**

Brain		Compression Hydrocephalus	Mild
[ Compression TGLS = 6-1 ]			
[ Hydrocephalus TGLS = 7-1 ]			
Eye		Cataract	Mild
[ Cataract TGLS = 1-13 ]			
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-5 ]			
Larynx		Metaplasia	Squamous, Minimal
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-8 ]			
Prostate		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 3-11+12 ]			
Seminal Vesicle		Inflammation	Suppurative, Marked
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 2-7 ]			
Thyroid Gland	C Cell	Adenoma	
[ Adenoma TGLS = 8-2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 444

TRT#: 5

SEX: Male

DAY ON TEST: 705

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13411

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Mammary Gland
Parathyroid Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Mild
		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Marked
		Leukemia Mononuclear	
		Pheochromocytoma Benign	
Bone Marrow		Leukemia Mononuclear	
Brain		Compression	
		Hydrocephalus	Moderate
	[ Compression TGLS = 12-1 ]		
	[ Hydrocephalus TGLS = 11-1 ]		
Islets, Pancreatic		Carcinoma	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
		Leukemia Mononuclear	
Liver			
	[ Leukemia Mononuclear TGLS = 4-4 ]		
Lung		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 3-3+11 ]		
Lymph Node	Deep Cervical	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 7-13,8-16,2-15,13-2,1-14,14-3 ]		
	[ Leukemia Mononuclear TGLS = 7-13,8-16,2-15,13-2,1-14,14-3 ]		
Lymph Node, Bronchial		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 7-13,1-14,8-16,2-15,13-2,14-3 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 444

**TRT#:** 5

**DOSE:** 0.05 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 705

**HISTO:** 13411

**ORGAN AND ACCOUNTABLE SITE STATUS**

Lymph Node, Mandibular [ Leukemia Mononuclear TGLS = 7-13,8-16,2-15,13-2,1-14,14-3 ]		Leukemia Mononuclear	
Lymph Node, Mediastinal [ Leukemia Mononuclear TGLS = 7-13,8-16,2-15,13-2,1-14,14-3 ]		Leukemia Mononuclear	
Lymph Node, Mesenteric [ Leukemia Mononuclear TGLS = 7-13,8-16,2-15,13-2,1-14,14-3 ]		Leukemia Mononuclear	
Nose	Nasolacrim Dct	Inflammation Pigmentation	Suppurative, Mild Minimal
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma Leukemia Mononuclear	
	[ Adenoma TGLS = 5-8 ]		
	[ Leukemia Mononuclear TGLS = 5-8 ]		
Prostate		Inflammation	Suppurative, Mild
Spleen		Fibrosis Leukemia Mononuclear	Moderate
	[ Fibrosis TGLS = 9-12 ]		
	[ Leukemia Mononuclear TGLS = 6,10-4+12 ]		
Testes	Interstit Cell	Hyperplasia	Moderate
Thymus		Leukemia Mononuclear	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 445

TRT#: 5

SEX: Male

DAY ON TEST: 611

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13412

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Liver	Lung	Lymph Node, Bronchial
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Brain	Compression	
	Hydrocephalus	Mild
[ Compression TGLS = 2-1 ]		
[ Hydrocephalus TGLS = 3-1 ]		
Islets, Pancreatic	Adenoma	
Kidney	Nephropathy	Chronic, Moderate
Larynx	Inflammation	Chronic, Minimal
Lymph Node, Mandibular	Hyperplasia	Lymphoid, Moderate
Nose	Foreign Body	Mild
	Pigmentation	Minimal
Pituitary Gland	Cyst	
	Hemorrhage	Marked
	Necrosis	Marked
[ Cyst TGLS = 1-8 ]		
[ Hemorrhage TGLS = 1-8 ]		
[ Necrosis TGLS = 1-8 ]		
Stomach, Forestomach	Mineralization	Moderate
	Ulcer	Moderate
[ Mineralization TGLS = 4-8 ]		
[ Ulcer TGLS = 4-8 ]		
Testes	Interstitial Cell	Hyperplasia
		Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 445

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 611

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13412

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:12  
**First Dose M/F:** NA / NA  
**Lab:** BNW

<b>ANIMAL ID:</b> 446	<b>TRT#:</b> 5	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 0.05 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13413

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Pituitary Gland	Trachea
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**OBSERVATIONS**

Larynx		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
[ Leukemia Mononuclear TGLS = 10-3 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12 ]			
Nose		Pigmentation	Mild
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 2-14 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-11 ]			
Testes	Bilateral, Interstit Cell Seminif Tub	Adenoma Atrophy	Marked
[ Adenoma TGLS = 8,11,12-7+13 ]			
[ Atrophy TGLS = 9-7 ]			
Thymus		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-2 ]			
Thyroid Gland	C Cell	Adenoma	
[ Adenoma TGLS = 7-2 ]			

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

---

**ANIMAL ID:** 447

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.05 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13414

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Trachea

---

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Artery

Mineralization

Minimal

Nose

Pigmentation

Minimal

Thyroid Gland

C Cell

Carcinoma

[ Carcinoma TGLS = 1-2. ]

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 448

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13415

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

[ Nephropathy TGLS = 3-5 ]

Nephropathy

Chronic, Marked

Lung

Alveolus

Hemorrhage

Minimal

Lymph Node

Renal

Pigmentation

Mild

[ Pigmentation TGLS = 4-11 ]

Nose

Foreign Body

Mild

Hemorrhage

Moderate

Inflammation

Suppurative, Mild

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 5-8 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 1,2-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 449

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Dead

DAY ON TEST: 471

HISTO: 13416

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Small, Duodenum
Islets, Pancreatic	Larynx	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Spleen	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Ileum
Intestine Small, Jejunum			

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign Pheochromocytoma Malignant	
[ Pheochromocytoma Malignant TGLS = 2-5 ]			
Kidney		Nephropathy	Chronic, Moderate
Lung	Alveolus	Hemorrhage	Mild
[ Hemorrhage TGLS = 1-3 ]			
Nose		Pigmentation	Minimal
Spleen			
Note: AUTOLYSIS POSSIBLY MASKS EARLY MCL IN LIVER,SPLEEN			
Stomach, Forestomach		Acanthosis Inflammation	Mild Suppurative, Mild
Stomach, Glandular		Inflammation	Suppurative, Mild
Testes	Seminif Tub	Atrophy	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 450

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13417

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Prostate

Seminal Vesicle

Trachea

**OBSERVATIONS**

Kidney

[ Nephropathy TGLS = 3-5 ]

Nephropathy

Chronic, Marked

Lung

Carcinoma

Metastatic (Thyroid Gland)

Nose

Pigmentation

Mild

Spleen

Fibrosis

Moderate

[ Fibrosis TGLS = 2-4 ]

Testes

Interstit Cell

Adenoma

Seminif Tub

Atrophy

Marked

Arteriole

Inflammation

Marked

[ Adenoma TGLS = 4-7 ]

[ Atrophy TGLS = 5-7 ]

Thyroid Gland

C Cell

Carcinoma

[ Carcinoma TGLS = 1-11 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 451

TRT#: 5

SEX: Male

DAY ON TEST: 402

DOSE: 0.05 PPM

DISP: Dead

HISTO: 13418

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Brain	Epididymis
Esophagus	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Islets, Pancreatic	Liver	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Lymph Node, Bronchial

AUTO PRECLUDES DIAG.

Intestine Large, Cecum                      Intestine Small, Jejunum

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Minimal
Blood Vessel	Aorta	Mineralization	Moderate
[ Mineralization TGLS = 3-2+11 ]			
Bone Marrow		Myelofibrosis	Mild
Heart		Cardiomyopathy	Moderate
		Mineralization	Marked
Kidney		Mineralization	Marked
		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-5. ]			
Larynx		Mineralization	Moderate
Lung	Alveolus	Hemorrhage	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Artery	Mineralization	Moderate
[ Hemorrhage TGLS = 4-3. ]			
[ Infiltration Cellular TGLS = 8-3. ]			
Mesentery	Fat	Mineralization	Moderate
	Fat	Necrosis	Marked
[ Mineralization TGLS = 5-13. ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 451

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 402

**DOSE:** 0.05 PPM

**DISP:** Dead

**HISTO:** 13418

**ORGAN AND ACCOUNTABLE SITE STATUS**

Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Mild
Parathyroid Gland		Hyperplasia	Marked
	[ Hyperplasia TGLS = 1-2. ]		
Spleen		Fibrosis	Mild
	[ Fibrosis TGLS = 9-4. ]		
Stomach, Forestomach		Mineralization	Marked
	[ Mineralization TGLS = 7-12.,10-12. ]		
Stomach, Glandular		Mineralization	Marked
	[ Mineralization TGLS = 7-12.,10-12. ]		
Testes	Interstit Cell	Adenoma	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 452

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13419

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Nose

Pigmentation

Mild

Testes

Bilateral, Interstit Cell

Adenoma

Seminif Tub

Atrophy

Marked

[ Adenoma TGLS = 1,3-7 ]

[ Atrophy TGLS = 2-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 453

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 731

**DOSE:** 0.05 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13420

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Lung

Trachea

---

**OBSERVATIONS**

Eye

Cataract

Mild

[ Cataract TGLS = 1-11 ]

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 2-8 ]

Testes

Interstit Cell

Adenoma

[ Adenoma TGLS = 3-7 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 454

TRT#: 5

SEX: Male

DAY ON TEST: 535

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13421

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Cortex		Metaplasia	Osseous, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-6,5-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-6,5-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-6,5-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-6,5-2 ]			
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 2-12 ]			
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-11 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1,7-7 ]			
Thymus		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 454

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 535

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13421

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 455

TRT#: 5

DOSE: 0.05 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 705

HISTO: 13422

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Pancreas	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Brain		Hemorrhage	Moderate
		Leukemia Mononuclear	
Heart		Leukemia Mononuclear	
		Thrombosis	
		[ Leukemia Mononuclear TGLS = 6-4 ]	
		[ Thrombosis TGLS = 6-4 ]	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Liver	Hepatocyte	Hyperplasia	Marked
		Leukemia Mononuclear	
		Thrombosis	
		[ Hyperplasia TGLS = 4-4 ]	
Lung		Leukemia Mononuclear	
		Thrombosis	
Lymph Node	Renal	Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 5-12 ]	
Lymph Node, Bronchial		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 5-12 ]	
Lymph Node, Mandibular		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 5-12 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 455

**TRT#:** 5

**DOSE:** 0.05 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 705

**HISTO:** 13422

**ORGAN AND ACCOUNTABLE SITE STATUS**

Lymph Node, Mediastinal [ Leukemia Mononuclear TGLS = 5-12 ]		Leukemia Mononuclear	
Lymph Node, Mesenteric [ Leukemia Mononuclear TGLS = 5-12 ]		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Pharynx		Squamous Cell Carcinoma	
Note: CA IS AROUND MOLAR ROOT AND ADJACENT PALATE EPITH.			
Pituitary Gland	Pars Distalis	Adenoma	
Prostate		Inflammation	Suppurative, Moderate
Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[ Fibrosis TGLS = 7-11 ]			
[ Leukemia Mononuclear TGLS = 2-11 ]			
Stomach, Forestomach		Acanthosis	Mild
		Hyperkeratosis	Mild
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 3-7 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 456

TRT#: 5

SEX: Male

DAY ON TEST: 635

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13423

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	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	Larynx
Mammary Gland	Parathyroid Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Medulla	Bilateral	Hyperplasia Pheochromocytoma Benign	Moderate
Bone Marrow		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
		[ Leukemia Mononuclear TGLS = 9-5 ]	
Liver		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 8-4 ]	
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
		Leukemia Mononuclear	
	Artery	Mineralization	Minimal
		[ Leukemia Mononuclear TGLS = 2-3 ]	
Lymph Node	Pancreatic	Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 10-12,3-2,1-7 ]	
Lymph Node, Bronchial		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 10-12,3-2,1-7 ]	
Lymph Node, Mandibular		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 10-12,3-2,1-7 ]	
Lymph Node, Mediastinal		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 10-12,3-2,1-7 ]	
Lymph Node, Mesenteric		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 10-12,3-2,1-7 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 456

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 635

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13423

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 5-8 ]		
Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 7-11 ]		
Testes	Seminif Tub	Atrophy	Marked
	[ Atrophy TGLS = 6-7 ]		
Thymus		Leukemia Mononuclear	

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 457

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13424

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Lung

Alveolus

Hemorrhage

Minimal

Nose

Hemorrhage

Mild

Pigmentation

Mild

Pancreas

Artery

Inflammation

Marked

[ Inflammation TGLS = 3-6 ]

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 2,4-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 458

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13425

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Lung

Trachea

**OBSERVATIONS**

Nose

Pigmentation

Mild

Skin

Fibroma

[ Fibroma TGLS = 1,4-11+12+13+14+15 ]

Testes

Interstit Cell

Adenoma

Seminif Tub

Atrophy

Marked

[ Adenoma TGLS = 2-7 ]

[ Atrophy TGLS = 3-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 459

TRT#: 5

SEX: Male

DAY ON TEST: 649

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13426

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Larynx
Liver	Lung	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Preputial Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Testes
Thymus	Thyroid Gland	Trachea	

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Minimal
Brain		Compression	
		Hydrocephalus	Minimal
Heart		Cardiomyopathy	Mild
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Prostate		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-11 ]			
Seminal Vesicle		Inflammation	Suppurative, Moderate
Urethra		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 4-12 ]			
Urinary Bladder	Transit Epithe	Hyperplasia	Moderate
		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 460

TRT#: 5

SEX: Male

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13427

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Leukemia Mononuclear

Nephropathy

Chronic, Marked

[ Leukemia Mononuclear TGLS = 2-5 ]

[ Nephropathy TGLS = 2-5 ]

Liver

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-4 ]

Lung

Leukemia Mononuclear

Lymph Node, Mandibular

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 6-11,7-7 ]

Lymph Node, Mesenteric

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 6-11,7-7 ]

Nose

Pigmentation

Mild

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-4 ]

Stomach, Forestomach

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 9-12,8-12 ]

Stomach, Glandular

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 9-12,8-12 ]

Testes

Interstitial Cell

Adenoma

Seminif Tub

Atrophy

Marked

[ Adenoma TGLS = 4-7 ]

[ Atrophy TGLS = 5-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 601

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13248

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Mammary Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Stomach, Forestomach	Stomach, Glandular	Thymus
Urinary Bladder			

**MISSING**

Larynx	Parathyroid Gland
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**OBSERVATIONS**

Adrenal Medulla	Bilateral	Hyperplasia	Moderate
Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
[ Hemorrhage TGLS = 4-3 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-8 ]			
Prostate		Inflammation	Suppurative, Moderate
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 2-11 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 601

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13248

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Spleen [ Leukemia Mononuclear TGLS = 3-4 ]		Leukemia Mononuclear	
Testes [ Adenoma TGLS = 1-7 ]	Interstit Cell	Adenoma	
Thyroid Gland	C Cell	Carcinoma	
Trachea		Pigmentation	Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 602

TRT#: 7

SEX: Male

DAY ON TEST: 500

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13249

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Pancreas	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Testes	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Brain		Hemorrhage	Moderate
[ Hemorrhage TGLS = 6,7-1 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-12 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-12 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-12 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-12 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-12 ]			
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Prostate		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 602

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 500

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13249

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 1-11 ]

Thyroid Gland

Ultimobranchial Cyst

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 603

TRT#: 7

SEX: Male

DAY ON TEST: 600

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13250

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
Eye		Cataract	Mild
	Antr Chamber	Hemorrhage	Mild
[ Hemorrhage TGLS = 1-11 ]			
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-5 ]			
Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 4-4 ]			
Lung	Bronchiole	Pigmentation	Minimal
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 2-12 ]			
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Prostate		Inflammation	Suppurative, Mild
Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
[ Adenoma TGLS = 3-7 ]			
[ Atrophy TGLS = 7-7 ]			
Trachea		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 604

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 695

HISTO: 13251

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Marked
		Leukemia Mononuclear	
		Pheochromocytoma Benign	
Bone Marrow		Leukemia Mononuclear	
Brain		Hemorrhage	Minimal
Heart		Thrombosis	
Kidney		Nephropathy	Chronic, Moderate
Note: PELVIS/PAPILLA NSL;SUSPECT UROLITHS WASHED OUT.			
Liver		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 3-4 ]		
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
	Alveolus	Inflammation	Suppurative, Mild
	Bronchiole	Leukemia Mononuclear	
	[ Infiltration Cellular TGLS = 1,4-3+11 ]	Pigmentation	Mild
Lymph Node, Bronchial		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 7-7 ]		
Lymph Node, Mandibular		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 7-7 ]		
Lymph Node, Mediastinal		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 7-7 ]		
Lymph Node, Mesenteric		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

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**ANIMAL ID:** 604

**TRT#:** 7

**DOSE:** 0.2 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 695

**HISTO:** 13251

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Leukemia Mononuclear TGLS = 7-7 ]

Nose

Inflammation

Suppurative, Minimal

Pigmentation

Mild

Pancreas

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 5-12 ]

Pituitary Gland

Pars Distalis

Hyperplasia

Mild

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 2-12 ]

Thymus

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 605

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13252

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Pancreas
Preputial Gland	Salivary Glands	Seminal Vesicle	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Urinary Bladder

OBSERVATIONS

Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 5-5 ]			
Liver		Leukemia Mononuclear	
Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Moderate
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Mild
[ Alveolar/Bronchiolar Adenoma TGLS = 8-12 ]			
[ Hyperplasia TGLS = 7-11 ]			
Lymph Node	Renal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-5 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-5 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-5 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-5 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-5 ]			
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 3-13 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:12

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

**Lab:** BNW

**ANIMAL ID:** 605

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13252

**ORGAN AND ACCOUNTABLE SITE STATUS**

Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Mild
		Pigmentation	Mild
Parathyroid Gland		Hyperplasia	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 11-8 ]			
Prostate		Inflammation	Suppurative, Mild
Skin		Cyst Epithelial Inclusion	
[ Cyst Epithelial Inclusion TGLS = 1-14 ]			
Spleen		Ectopic Tissue	
		Leukemia Mononuclear	
[ Ectopic Tissue TGLS = 9-4 ]			
[ Leukemia Mononuclear TGLS = 2-4 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 4,10-7 ]			
Trachea		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 606

TRT#: 7

SEX: Male

DAY ON TEST: 485

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13253

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Spleen	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**OBSERVATIONS**

Brain		Compression	
[ Compression TGLS = 4-1 ]			
Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Mild
Liver		Vacuolization Cytoplasmic	Marked
[ Vacuolization Cytoplasmic TGLS = 2-4 ]			
Lung	Bronchiole	Pigmentation	Minimal
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Stomach, Forestomach		Acanthosis	Marked
		Inflammation	Suppurative, Moderate
[ Acanthosis TGLS = 3-8+11 ]			
Stomach, Glandular		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 607

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Dead

DAY ON TEST: 585

HISTO: 13254

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Liver	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

AUTO PRECLUDES DIAG.

Intestine Small, Ileum

OBSERVATIONS

Brain		Compression Hemorrhage	Minimal
[ Compression TGLS = 3-1 ]			
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Marked
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3 ]			
Nose	Respirat Epith	Hyperplasia Pigmentation	Minimal Mild
Note: FOCAL HYPERPL ON MEDIAN SEPTUM IN XS1.			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-11 ]			
Preputial Gland		Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:12

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 608

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13255

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	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	Larynx	Lymph Node, Bronchial
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Heart		Cardiomyopathy	Minimal
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Marked
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung		Alveolar/Bronchiolar Carcinoma	
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 6-11 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
Nose		Pigmentation	Mild
Pituitary Gland	Pars Intermed	Hyperplasia	Marked
Skin	Sebaceous Gl	Carcinoma	
Note: ??MASS ON SL 13 LOOKS LIKE PREPUTIAL GL??			
Note: SL 15(FROM WET TISS)HAS WHISKERS,SEBACEOUS TUMOR.			
Note: EMBEDDED MORE FACE LESION FROM WET TISS:SEBACEOUS CA.			
[ Carcinoma TGLS = 2-13+15 ]			
Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[ Fibrosis TGLS = 7-12 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 608

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13255

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Leukemia Mononuclear TGLS = 3-4 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 5-7 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 609

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13256

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Blood	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Nose	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Harderian GI			
Note: BROWN PIGMENT IN PAM.			
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Minimal
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Mild
[ Hemorrhage TGLS = 1-3+11 ]			
Pancreas	Acinus	Atrophy	Minimal
Seminal Vesicle		Inflammation	Suppurative, Minimal
Testes	Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 610

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Dead

DAY ON TEST: 628

HISTO: 13257

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Pancreas	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Stomach, Forestomach	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**AUTO PRECLUDES DIAG.**

Intestine Small, Jejunum

**OBSERVATIONS**

Adrenal Medulla		Hyperplasia	Mild
Brain		Hemorrhage	Moderate
[ Hemorrhage TGLS = 5-1 ]			
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Marked
Lung	Alveolus	Hemorrhage	Marked
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3 ]			
Mesentery	Fat	Necrosis	Mild
[ Necrosis TGLS = 3-11 ]			
Nose	Respirat Epith	Hyperplasia	Minimal
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
		Hemorrhage	Marked
[ Cyst TGLS = 2-8 ]			
[ Hemorrhage TGLS = 2-8 ]			
Spleen		Fibrosis	Mild
[ Fibrosis TGLS = 4-4 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 610

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 628

**DOSE:** 0.2 PPM

**DISP:** Dead

**HISTO:** 13257

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Stomach, Glandular

Serosa

Fibrosis

Mild

Testes

Interstit Cell

Hyperplasia

Minimal

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 611

TRT#: 7

SEX: Male

DAY ON TEST: 582

DOSE: 0.2 PPM

DISP: Dead

HISTO: 13258

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Ear	Epididymis	Esophagus	Heart
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Jejunum	Islets, Pancreatic
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Pancreas	Parathyroid Gland
Pituitary Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Large, Colon	Intestine Small, Ileum
------------------------	------------------------	------------------------

OBSERVATIONS

Brain		Glioma Malignant	
[ Glioma Malignant TGLS = 2-1 ]			
Kidney		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Suppurative, Moderate
Lung	Alveolus	Hemorrhage	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3 ]			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Mild
Testes	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 612

TRT#: 7

SEX: Male

DAY ON TEST: 542

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13259

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Eye	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Mandibular
Lymph Node, Mesenteric	Mammary Gland	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Thymus	Thyroid Gland	Trachea	

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Moderate
Epididymis	Bilateral	Mesothelioma Malignant	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
		[ Leukemia Mononuclear TGLS = 8-5 ]	
Liver		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 7-4 ]	
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
Lymph Node, Bronchial		Leukemia Mononuclear	
		[ Leukemia Mononuclear TGLS = 11-3 ]	
Lymph Node, Mediastinal		Mesothelioma Malignant	
		[ Mesothelioma Malignant TGLS = 4-2 ]	
Mesentery		Mesothelioma Malignant	
		[ Mesothelioma Malignant TGLS = 10-11+14 ]	
Nose		Hemorrhage	Mild
		Pigmentation	Mild
Pancreas		Mesothelioma Malignant	
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Mild
Spleen		Leukemia Mononuclear	
		Mesothelioma Malignant	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 612

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 542

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13259

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 5-11 ]

[ Mesothelioma Malignant TGLS = 6-11 ]

Stomach, Forestomach

Stomach, Glandular

Testes

Interstit Cell

Seminif Tub

Bilateral

Mesothelioma Malignant

Mesothelioma Malignant

Adenoma

Atrophy

Mesothelioma Malignant

Moderate

[ Adenoma TGLS = 12-7 ]

[ Mesothelioma Malignant TGLS = 9-7+12 ]

Urinary Bladder

Mesothelioma Malignant

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 613

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 534

HISTO: 13260

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mesenteric
Mammary Gland	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Urinary Bladder
Zymbal's Gland			

MISSING

Lymph Node, Mediastinal

AUTO PRECLUDES DIAG.

Intestine Small, Jejunum

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Marked
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
		Squamous Cell Carcinoma	Metastatic (Skin)
Note: SMALL LUNG METS IN OTHER LOBES ALSO (SL 3).			
[ Squamous Cell Carcinoma TGLS = 3-11 ]			
Lymph Node, Mandibular		Squamous Cell Carcinoma	Metastatic (Skin)
[ Squamous Cell Carcinoma TGLS = 2-7 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 5-13 ]			
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Mild
Skin		Squamous Cell Carcinoma	
[ Squamous Cell Carcinoma TGLS = 4-14 ]			
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 613

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 534

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13260

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Leukemia Mononuclear TGLS = 6-12 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 7-7 ]

Trachea

Pigmentation

Minimal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 614

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13261

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Pancreas
Parathyroid Gland	Salivary Glands	Seminal Vesicle	Stomach, Forestomach
Stomach, Glandular	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Medulla	Bilateral	Hyperplasia	Marked
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Marked
Liver		Basophilic Focus	
		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Mild
		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 6-13 ]			
Nose		Foreign Body	Mild
		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
Preputial Gland		Carcinoma	
[ Carcinoma TGLS = 2-12 ]			
Prostate	Epithelium	Hyperplasia	Minimal
Skin		Squamous Cell Papilloma	
[ Squamous Cell Papilloma TGLS = 1-14 ]			
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 614

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13261

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Leukemia Mononuclear TGLS = 3-4 ]

Testes

Bilateral, Interstit Cell  
Seminif Tub

Adenoma  
Atrophy

Marked

[ Adenoma TGLS = 4,7-7 ]

[ Atrophy TGLS = 5-7 ]

Thyroid Gland

C Cell

Hyperplasia

Mild

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 615

TRT#: 7

SEX: Male

DAY ON TEST: 180

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13262

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Kidney	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Testes
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**OBSERVATIONS**

Intestine Large, Rectum		Sarcoma	
		Ulcer	Marked
[ Sarcoma TGLS = 3-12. ]			
Larynx		Inflammation	Suppurative, Minimal
Lung	Alveolus	Hemorrhage	Minimal
Nose		Pigmentation	Minimal
Seminal Vesicle		Inflammation	Suppurative, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 616

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 474

HISTO: 13263

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Pancreas	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Stomach, Forestomach	Stomach, Glandular
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Minimal
Eye	Choroid, Iris	Inflammation	Chronic, Moderate
[ Inflammation TGLS = 5-13 ]			
Kidney		Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung	Bronchiole	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-3 ]		Pigmentation	Minimal
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Pigmentation	Mild
Parathyroid Gland		Hyperplasia	Mild
Skin		Abscess	Mild
[ Abscess TGLS = 6-11 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-12 ]			
Testes	Interstitial Cell	Adenoma	
[ Adenoma TGLS = 8-7 ]	Interstitial Cell	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 616

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 474

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13263

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Thymus

Leukemia Mononuclear

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 617

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13264

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Suppurative, Mild
Liver	Biliar Tract	Hyperplasia	Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3. ]			
Nose		Hemorrhage	Moderate
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Testes	Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 618

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13265

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Adrenal Medulla		Pheochromocytoma Benign	
[ Pheochromocytoma Benign TGLS = 4-5 ]			
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
Nose		Hemorrhage	Moderate
	Respirat Epith	Hyperplasia	Minimal
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-8 ]		Cyst	
[ Cyst TGLS = 6-8 ]			
Prostate		Inflammation	Suppurative, Moderate
Spleen		Ectopic Tissue	
		Leukemia Mononuclear	
[ Ectopic Tissue TGLS = 5-11 ]			
[ Leukemia Mononuclear TGLS = 3-4 ]			
Stomach, Forestomach		Acanthosis	Moderate
		Hyperkeratosis	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 618	<b>TRT#:</b> 7 <b>DOSE:</b> 0.2 PPM	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 730 <b>HISTO:</b> 13265
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Acanthosis TGLS = 8-8 ] [ Hyperkeratosis TGLS = 8-8 ] [ Hypoplasia TGLS = 7-8 ] Testes	Muscularis  Bilateral, Interstit Cell Seminif Tub	Hypoplasia  Adenoma Atrophy	Marked  Moderate
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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 619

TRT#: 7

SEX: Male

DAY ON TEST: 589

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13266

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Lung	Bronchiole	Pigmentation	Mild
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Moderate
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Stomach, Forestomach		Acanthosis	Moderate
[ Acanthosis TGLS = 5-8 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 4-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 620

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 639

HISTO: 13267

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Larynx
Lymph Node, Bronchial	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Pancreas
Preputial Gland	Salivary Glands	Seminal Vesicle	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Brain		Compression	
Heart		Cardiomyopathy	Mild
Islets, Pancreatic		Adenoma	
[ Adenoma TGLS = 3-4 ]			
Kidney	Renal Tubule	Hyperplasia	Marked
		Nephropathy	Chronic, Marked
Note: FOCUS OF HYPERPLASIA IS MORE MARKED THAN THOSE			
Liver		Basophilic Focus	
Lung		Alveolar/Bronchiolar Adenoma	
	Bronchiole	Pigmentation	Minimal
[ Alveolar/Bronchiolar Adenoma TGLS = 2-11 ]			
Lymph Node	Renal	Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 5-7,4-5 ]			
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 5-7,4-5 ]			
Mammary Gland		Galactocele	
		Inflammation	Suppurative, Moderate
[ Galactocele TGLS = 7-13 ]			
[ Inflammation TGLS = 7-13 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 7-14 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 620

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 639

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13267

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Nose		Hemorrhage	Moderate
	Nasolacrim Dct	Inflammation	Suppurative, Mild
Parathyroid Gland		Hyperplasia	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-8 ]			
Prostate		Inflammation	Suppurative, Mild
Skin		Neurofibrosarcoma	
[ Neurofibrosarcoma TGLS = 1-12 ]			
Testes	Arteriole	Inflammation	Moderate

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 621

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13268

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3. ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
		Hemorrhage	Mild
Pancreas	Acinus	Atrophy	Mild
Seminal Vesicle		Inflammation	Suppurative, Minimal
Testes	Interstitial Cell	Adenoma	
Thyroid Gland		Ultimobranchial Cyst	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 622

TRT#: 7

SEX: Male

DAY ON TEST: 709

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13269

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Pancreas	Parathyroid Gland
Salivary Glands	Seminal Vesicle	Stomach, Forestomach	Stomach, Glandular
Thymus	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Medulla	Bilateral	Hyperplasia	Marked
Bone Marrow		Myelofibrosis	Moderate
Heart		Cardiomyopathy	Mild
Kidney	Pelvis	Cyst	
	Renal Tubule	Dilatation	Mild
		Hyperplasia	Marked
		Mineralization	Minimal
		Nephropathy	Chronic, Marked
[ Cyst TGLS = 9-11 ]			
[ Dilatation TGLS = 8-5+11 ]			
[ Nephropathy TGLS = 5-5+11 ]			
Liver		Leukemia Mononuclear	
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
	Bronchiole	Leukemia Mononuclear	
	Peribronchiolr	Pigmentation	Minimal
		Pigmentation	Moderate
[ Leukemia Mononuclear TGLS = 1-3 ]			
Lymph Node	Renal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6,13-7,6-5 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6,13-7,6-5 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-6,13-7,6-5 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 622

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 709

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13269

**ORGAN AND ACCOUNTABLE SITE STATUS**

Lymph Node, Mediastinal [ Leukemia Mononuclear TGLS = 10-6,13-7,6-5 ]		Leukemia Mononuclear	
Lymph Node, Mesenteric [ Leukemia Mononuclear TGLS = 10-6,13-7,6-5 ]		Leukemia Mononuclear	
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Preputial Gland [ Cyst TGLS = 3-7 ]		Cyst	
Prostate	Epithelium	Hyperplasia	Minimal
Skin [ Fibroma TGLS = 2-12 ]		Fibroma	
Spleen [ Leukemia Mononuclear TGLS = 4-4 ]		Leukemia Mononuclear	
Testes [ Adenoma TGLS = 12-7 ]	Bilateral, Interstit Cell	Adenoma	
Thyroid Gland [ Carcinoma TGLS = 7-2 ]	C Cell	Carcinoma	
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 623

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 612

HISTO: 13270

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Epididymis	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Mammary Gland	Parathyroid Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Testes
Thymus	Trachea	Urinary Bladder	

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Myelofibrosis	Moderate
Heart		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-11,8-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-11,8-7 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-11,8-7 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-11,8-7 ]			
Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Moderate
		Fibrosis	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 623

**TRT#:** 7

**DOSE:** 0.2 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 612

**HISTO:** 13270

**ORGAN AND ACCOUNTABLE SITE STATUS**

		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-4 ]			
Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
[ Adenoma TGLS = 2-8 ]			
[ Leukemia Mononuclear TGLS = 2-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Stomach, Forestomach		Acanthosis	Moderate
		Inflammation	Suppurative, Moderate
[ Acanthosis TGLS = 6-8 ]			
Stomach, Glandular		Inflammation	Suppurative, Moderate
Thyroid Gland	C Cell	Hyperplasia	Moderate
		Ultimobranchial Cyst	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 624

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13271

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Larynx
Mammary Gland	Pancreas	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Trachea	Urinary Bladder	

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Moderate
Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Heart		Cardiomyopathy	Minimal
Islets, Pancreatic		Adenoma	
[ Adenoma TGLS = 4-4 ]			
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-7,5-6 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-7,5-6 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-7,5-6 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-7,5-6 ]			
Nose		Hemorrhage	Marked
		Pigmentation	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 624

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13271

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Pituitary Gland [ Adenoma TGLS = 1-8 ]	Pars Distalis	Adenoma	
Spleen [ Leukemia Mononuclear TGLS = 3-4 ]		Leukemia Mononuclear	
Testes	Arteriole	Inflammation	Marked
Thymus		Leukemia Mononuclear	
Thyroid Gland	C Cell	Adenoma	
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 625

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 668

HISTO: 13272

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Mammary Gland
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Chronic, Minimal
		Metaplasia	Squamous, Minimal
Liver		Clear Cell Focus	
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Spleen		Fibrosis	Marked
		Leukemia Mononuclear	
[ Fibrosis TGLS = 3-11 ]			
[ Leukemia Mononuclear TGLS = 2-4 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-7+12 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 626

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 628

HISTO: 13273

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Malignant	
[ Pheochromocytoma Malignant TGLS = 8,9-5 ]			
Bone Marrow		Myelofibrosis	Minimal
Heart		Thrombosis	
Kidney		Nephropathy	Chronic, Moderate
Liver		Clear Cell Focus	
		Hyperplasia	Marked
		Leukemia Mononuclear	
[ Hyperplasia TGLS = 6-4+11 ]			
[ Leukemia Mononuclear TGLS = 7-4+11 ]			
Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Marked
	Bronchiole	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-3+13+14 ]		Pigmentation	Minimal
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-7,11-6 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-7,11-6 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-7,11-6 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 626

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 628

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13273

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Leukemia Mononuclear TGLS = 10-7,11-6 ]

Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Mild
Preputial Gland		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	

[ Leukemia Mononuclear TGLS = 5-12 ]

Stomach, Forestomach	Muscularis	Hypoplasia	Marked
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[ Hypoplasia TGLS = 12-8 ]

Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Marked

[ Adenoma TGLS = 4-7 ]

[ Atrophy TGLS = 3-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 627

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13274

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
Lung	Alveolus	Hemorrhage	Mild
	Alveolar Epith	Hyperplasia	Moderate
	Artery	Mineralization	Mild
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
Note: PIGMENT IS IN SUBMUCOSA,EPITH CELLS OF BRONCHIOLES. [ Hemorrhage TGLS = 1-3. ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
		Inflammation	Suppurative, Minimal
		Pigmentation	Minimal
Note: PIGMENT IS IN RESP EPITH AND SUBMUCOSA. Note: INFLAM IS FOCAL IN XS 1.			
Pancreas	Acinus	Atrophy	Minimal
Testes	Interstit Cell	Adenoma	Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 628

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13275

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Liver		Granuloma	Multifocal, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3. ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Testes	Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 629

TRT#: 7

SEX: Male

DAY ON TEST: 220

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13276

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Pituitary Gland
Prostate	Salivary Glands	Skeletal Muscle	Skin
Spinal Cord	Spleen	Stomach, Forestomach	Stomach, Glandular
Testes	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Minimal
	Bronchiole	Pigmentation	Minimal
Nose		Pigmentation	Minimal
Preputial Gland		Cyst	
Seminal Vesicle		Inflammation	Suppurative, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 630

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13277

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Pancreas	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Trachea	Urinary Bladder

**OBSERVATIONS**

Brain		Hemorrhage	Minimal
Kidney		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Suppurative, Minimal
		Metaplasia	Squamous, Minimal
Liver			
Note: BORDERLINE FOR MCL.			
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Mild
	[ Hemorrhage TGLS = 3-2+11 ]		
Mesentery	Fat	Necrosis	Marked
	[ Necrosis TGLS = 2-12 ]		
Nose		Foreign Body	Moderate
	Respirat Epith	Hyperplasia	Marked
		Inflammation	Suppurative, Mild
Note: HYPERPL OF BOTH TURBS CONTRALATERAL TO FB.			
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 1-8 ]		
Prostate		Inflammation	Suppurative, Mild
Testes	Interstit Cell	Hyperplasia	Minimal
Thyroid Gland	Follicular Cel	Adenoma	
	[ Adenoma TGLS = 4-2 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 630

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13277

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 631

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13278

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

OBSERVATIONS

Islets, Pancreatic		Adenoma	
		Adenoma	
Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 3-11 ]			
Nose		Pigmentation	Mild
Note: PIGMENT MOST OBVIOUS IN XS 2.			
Seminal Vesicle		Inflammation	Suppurative, Mild
Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
[ Atrophy TGLS = 1-7. ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 632

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 704

HISTO: 13279

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Epididymis	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Mammary Gland
Parathyroid Gland	Preputial Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Trachea	Urinary Bladder		

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
		Pheochromocytoma Benign	
Brain		Hemorrhage	Marked
[ Hemorrhage TGLS = 3-1 ]			
Heart		Leukemia Mononuclear	
Islets, Pancreatic		Adenoma	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Liver		Hepatocellular Adenoma	
	Biliar Tract	Hyperplasia	Moderate
		Leukemia Mononuclear	
[ Hepatocellular Adenoma TGLS = 2-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
[ Leukemia Mononuclear TGLS = 6-3+11+12 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-2,9-6,5-3,11-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-2,9-6,5-3,11-7 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 632

TRT#: 7

SEX: Male

DAY ON TEST: 704

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13279

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Leukemia Mononuclear TGLS = 4-2,9-6,5-3,11-7 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-2,9-6,5-3,11-7 ]			
Nose		Hemorrhage	Mild
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Moderate
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-4 ]			
Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
[ Adenoma TGLS = 12-8 ]			
Spleen		Fibrosis	Mild
		Leukemia Mononuclear	
[ Fibrosis TGLS = 8-13 ]			
[ Leukemia Mononuclear TGLS = 1-13 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 10-7 ]			
Thymus		Leukemia Mononuclear	
Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 633

TRT#: 7

SEX: Male

DAY ON TEST: 617

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13280

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mediastinal
Mammary Gland	Parathyroid Gland	Prostate	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Preputial Gland

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Brain		Compression	
		Hydrocephalus	Moderate
	[ Hydrocephalus TGLS = 7,8-1 ]		
Kidney		Nephropathy	Chronic, Moderate
	[ Nephropathy TGLS = 6-5 ]		
Liver		Hepatocellular Adenoma	
	[ Hepatocellular Adenoma TGLS = 5-4 ]	Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Inflammation	Granulomatous, Marked
	Fat	Necrosis	Moderate
	[ Inflammation TGLS = 3-12 ]		
Nose		Pigmentation	Moderate
Pancreas	Acinus	Atrophy	Moderate
	[ Atrophy TGLS = 9-4 ]		
Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 633

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 617

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13280

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 1-8 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 2-11 ]

Testes

Seminif Tub

Atrophy

Marked

[ Atrophy TGLS = 4-7 ]

Thymus

Leukemia Mononuclear

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 634

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 683

HISTO: 13281

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Mammary Gland
Parathyroid Gland	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-4 ]			
Lung	Pleura	Fibrosis	Marked
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
[ Fibrosis TGLS = 3-11 ]			
[ Infiltration Cellular TGLS = 3-3+11 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-2 ]			
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 634

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 683

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13281

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Stomach, Forestomach  
[ Hypoplasia TGLS = 5-8 ]

Muscularis

Hypoplasia

Marked

Testes  
[ Adenoma TGLS = 6-7 ]

Bilateral, Interstit Cell

Adenoma

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 635

TRT#: 7

SEX: Male

DAY ON TEST: 681

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13282

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Harderian Gland	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Liver
Lymph Node, Bronchial	Lymph Node, Mesenteric	Mammary Gland	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Skin
Spleen	Stomach, Glandular	Trachea	Urinary Bladder

MISSING

Lymph Node, Mediastinal	Thymus
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OBSERVATIONS

Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Moderate
Eye [ Inflammation TGLS = 1-12 ]	Cornea	Inflammation	Marked
Islets, Pancreatic		Adenoma	
Kidney [ Nephropathy TGLS = 4-5 ]		Nephropathy	Chronic, Marked
Lung	Bronchiole	Pigmentation	Mild
Lymph Node, Mandibular [ Hyperplasia TGLS = 6-7 ]		Hyperplasia	Lymphoid, Marked
Nose		Pigmentation Squamous Cell Carcinoma Squamous Cell Carcinoma	Minimal Metastatic (Oral Mucosa)
Oral Mucosa [ Squamous Cell Carcinoma TGLS = 1+2-10-13 ]			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis Pars Distalis	Adenoma Hyperplasia	Mild
Prostate		Inflammation	Suppurative, Mild
Stomach, Forestomach [ Hypoplasia TGLS = 8-8 ]	Muscularis	Hypoplasia	Marked

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 635

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 681

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13282

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Testes

Interstit Cell

Adenoma

Interstit Cell

Hyperplasia

Mild

[ Adenoma TGLS = 3-7 ]

Thyroid Gland

C Cell

Hyperplasia

Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 636

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 723

HISTO: 13283

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Larynx	Lymph Node, Bronchial	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Parathyroid Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Brain		Compression	
		Hydrocephalus	Mild
[ Hydrocephalus TGLS = 7,8-1 ]			
Islets, Pancreatic		Carcinoma	
[ Carcinoma TGLS = 9-11 ]			
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-5 ]			
Liver		Leukemia Mononuclear	
Lung	Bronchiole	Pigmentation	Mild
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 10-7 ]			
Nose	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Suppurative, Mild
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[ Fibrosis TGLS = 3-4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 636

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 723

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13283

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 4-4 ]

Testes

Interstit Cell

Adenoma

Moderate

Arteriole

Inflammation

---

[ Adenoma TGLS = 5-7 ]

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 637

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 458

**DOSE:** 0.2 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13284

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3+11. ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
Preputial Gland		Cyst	
Testes	Interstit Cell	Adenoma	Multiple

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 638

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13285

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Epididymis	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3. ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
		Hemorrhage	Mild
	Respirat Epith	Hyperplasia	Minimal
		Pigmentation	Minimal
Testes	Interstit Cell	Adenoma	Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 639

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 600

HISTO: 13286

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Parathyroid Gland	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Medulla	Bilateral	Hyperplasia	Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Marked
	Bronchiole	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-3+11 ]		Pigmentation	Mild
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery		Inflammation	Granulomatous, Marked
	Fat	Necrosis	Marked
[ Necrosis TGLS = 1-12 ]			
Nose		Pigmentation	Mild
Pancreas		Leukemia Mononuclear	
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-12 ]			
Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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**ANIMAL ID:** 639

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 600

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13286

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 2-7 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 640

TRT#: 7

SEX: Male

DAY ON TEST: 639

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13287

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Lymph Node, Bronchial	Pancreas	Preputial Gland
Salivary Glands	Seminal Vesicle	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Mild
Adrenal Medulla		Pheochromocytoma Benign	
[ Pheochromocytoma Benign TGLS = 3-5 ]			
Brain		Compression	
[ Hydrocephalus TGLS = 4,5-1 ]		Hydrocephalus	Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Vacuolization Cytoplasmic	Mild
[ Vacuolization Cytoplasmic TGLS = 2-4 ]			
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Lymph Node, Mandibular		Hemorrhage	Moderate
[ Hemorrhage TGLS = 9-7,7-6 ]		Inflammation	Chronic, Moderate
[ Inflammation TGLS = 9-7 ]			
Lymph Node, Mediastinal		Pigmentation	Mild
Lymph Node, Mesenteric		Hemorrhage	Marked
[ Hemorrhage TGLS = 9-7,7-6 ]			
Mammary Gland		Hyperplasia	Mild
		Inflammation	Suppurative, Moderate

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 640	<b>TRT#:</b> 7	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 639
	<b>DOSE:</b> 0.2 PPM	<b>DISP:</b> Moribund	<b>HISTO:</b> 13287

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hyperplasia TGLS = 10-12 ]			
Nose	Respirat Epith	Foreign Body Hyperplasia Inflammation Pigmentation	Marked Mild Suppurative, Moderate Mild
Note: HYPERPL ON MED SEPT IN XS2 ADJACENT TO FB. Note: LESIONS RELATED TO FB.			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Prostate		Inflammation	Suppurative, Mild
Spleen			
Testes	Interstit Cell	Adenoma	
[ Adenoma TGLS = 8-7 ]			
Thyroid Gland	Follicular Cel	Adenoma	
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 641

TRT#: 7

SEX: Male

DAY ON TEST: 621

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13288

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Minimal
Adrenal Medulla		Hyperplasia	Mild
Blood Vessel		Atherosclerosis	Diffuse
Bone Marrow		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Marked
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung	Alveolus	Hemorrhage	Moderate
	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Marked
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Moderate
[ Hemorrhage TGLS = 2-3 ]			
[ Infiltration Cellular TGLS = 2-3 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-2,1-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-2,1-7 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-2,1-7 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-2,1-7 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 641

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 621

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13288

**ORGAN AND ACCOUNTABLE SITE STATUS**

Nose		Inflammation	Suppurative, Mild
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Hyperplasia	Marked
Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 3-11 ]		
Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Moderate
	[ Adenoma TGLS = 6-7 ]		
Thymus		Leukemia Mononuclear	
Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Moderate

**PRIMARY CAUSE OF DEATH**

-

Animal Note: ATYPICAL MCL; HISTIOCYTIC CELLS IN LN.

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 642

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13289

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Larynx	Liver	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Parathyroid Gland
Preputial Gland	Salivary Glands	Seminal Vesicle	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Mild
Heart		Cardiomyopathy	Mild
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Marked
Lung		Alveolar/Bronchiolar Adenoma	
	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Mild
	[ Alveolar/Bronchiolar Adenoma TGLS = 5-11 ]		
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
	[ Adenoma TGLS = 4-8 ]		
	[ Cyst TGLS = 6-8 ]		
Prostate		Inflammation	Suppurative, Moderate
Skin		Fibroma	
	[ Fibroma TGLS = 1-12 ]		
Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
	Arteriole	Inflammation	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 642

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13289

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 2-7 ]

[ Atrophy TGLS = 3-7 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 643

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13290

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Preputial Gland	Salivary Glands	Seminal Vesicle
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Urinary Bladder		

OBSERVATIONS

Adrenal Medulla	Bilateral	Hyperplasia	Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 5-11 ]			
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Lymph Node, Mediastinal		Pigmentation	Mild
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 4-12 ]			
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Prostate		Inflammation	Suppurative, Moderate
Skin		Fibroma	
[ Fibroma TGLS = 1-13+14 ]			
Testes	Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
[ Adenoma TGLS = 2-7 ]			
[ Atrophy TGLS = 3-7 ]			
Tooth		Inflammation	Suppurative, Marked
Trachea		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 644

TRT#: 7

SEX: Male

DAY ON TEST: 704

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13291

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Mammary Gland	Pancreas	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
Adrenal Medulla	Bilateral	Hyperplasia	Moderate
	Bilateral	Pheochromocytoma Benign	
Eye		Cataract	Mild
[ Cataract TGLS = 6-15 ]			
Heart		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Marked
Larynx		Metaplasia	Squamous, Mild
Liver		Hyperplasia	Marked
		Leukemia Mononuclear	
[ Hyperplasia TGLS = 3-12 ]			
[ Leukemia Mononuclear TGLS = 2-4+12 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Marked
	Bronchiole	Leukemia Mononuclear	
		Pigmentation	Mild
[ Leukemia Mononuclear TGLS = 8-3+11 ]			
Lymph Node	Renal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-14,9-3,10-2 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-14,9-3,10-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-14,9-3,10-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 644

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 704

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13291

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Leukemia Mononuclear TGLS = 4-14,9-3,10-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-14,9-3,10-2 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-13 ]			
Testes	Interstit Cell	Hyperplasia	Mild
Thymus		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-2 ]			
Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 645

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13292

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 4-5 ]			
Liver		Clear Cell Focus	
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Fibrosis	Minimal
[ Fibrosis TGLS = 1-4 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
[ Adenoma TGLS = 2-7 ]			
[ Atrophy TGLS = 3-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 646

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13293

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Adrenal Cortex [ Adenoma TGLS = 2-5. ]	Bilateral	Adenoma	
Kidney		Nephropathy	Chronic, Minimal
Liver		Granuloma	Multifocal, Mild
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Preputial Gland		Cyst	
Spleen [ Ectopic Tissue TGLS = 1-11. ]		Ectopic Tissue	
Testes	Interstit Cell	Adenoma	Multiple

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 647

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 620

HISTO: 13294

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Epididymis	Esophagus
Intestine Large, Cecum	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Pancreas	Pituitary Gland	Preputial Gland	Prostate
Salivary Glands	Seminal Vesicle	Skin	Spleen
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
Adrenal Medulla		Pheochromocytoma Benign	
Blood Vessel		Mineralization	Diffuse, Marked
[ Mineralization TGLS = 8-11 ]			
Bone Marrow		Myelofibrosis	Mild
Heart		Mineralization	Marked
[ Mineralization TGLS = 3-4 ]			
Intestine Large, Colon		Mineralization	Marked
[ Mineralization TGLS = 11-6 ]			
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 10-5 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Marked
	Artery	Mineralization	Marked
	Bronchiole	Pigmentation	Minimal
[ Infiltration Cellular TGLS = 2-3 ]			
Nose		Inflammation	Suppurative, Moderate
		Pigmentation	Minimal
Parathyroid Gland		Hyperplasia	Marked
[ Hyperplasia TGLS = 4-2 ]			
Skeletal Muscle		Mineralization	Marked
[ Mineralization TGLS = 7-13 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 647

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 620

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13294

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Stomach, Forestomach

[ Mineralization TGLS = 9-8 ]

Mineralization

Marked

Stomach, Glandular

[ Mineralization TGLS = 9-8 ]

Mineralization

Marked

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 5,6-7 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 648

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13295

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Moderate
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 2-5 ]			
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Skin		Neurofibroma	
[ Neurofibroma TGLS = 1-11 ]			
Spleen		Fibrosis	Mild
[ Fibrosis TGLS = 3-4 ]			
Testes	Interstit Cell	Adenoma	
	Arteriole	Inflammation	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 649

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 724

HISTO: 13296

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Epididymis	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Parathyroid Gland	Salivary Glands
Seminal Vesicle	Skin	Stomach, Forestomach	Stomach, Glandular
Trachea			

MISSING

Adrenal Medulla	Preputial Gland
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OBSERVATIONS

Adrenal Cortex		Cytomegaly	Mild
Bone Marrow		Leukemia Mononuclear	
Brain		Compression	
Heart		Leukemia Mononuclear	
Islets, Pancreatic		Carcinoma	
Kidney	Pelvis, Transit Epithe	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 9-5+13 ]			
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lung		Alveolar/Bronchiolar Carcinoma	
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 10-11 ]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-14 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-14 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-14 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 649

TRT#: 7

SEX: Male

DAY ON TEST: 724

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13296

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Leukemia Mononuclear TGLS = 7-14 ] Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-14 ] Mammary Gland		Galactocele Hyperplasia Inflammation	Moderate Suppurative, Moderate
[ Galactocele TGLS = 5-15 ] Nose	Respirat Epith	Foreign Body Hyperplasia Inflammation Pigmentation	Moderate Moderate Suppurative, Moderate Minimal
Note: LESIONS SEPARATE FROM FB. Pancreas		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ] Prostate		Inflammation	Suppurative, Marked
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12 ] Testes	Interstit Cell	Hyperplasia	Mild
Thymus		Carcinoma	Metastatic (Thyroid Gland)
Thyroid Gland	C Cell	Carcinoma	
[ Carcinoma TGLS = 1-2 ] Urinary Bladder	Transit Epithe	Hyperplasia Inflammation	Marked Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 650

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 541

HISTO: 13297

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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
Larynx	Mammary Gland	Parathyroid Gland	Pituitary Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Skin	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Heart		Thrombosis	
Kidney		Nephropathy	Chronic, Mild
[ Nephropathy TGLS = 9-5 ]			
Liver		Hyperplasia	Moderate
[ Hyperplasia TGLS = 4-4 ]		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12,3-2 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12,3-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12,3-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12,3-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12,3-2 ]			
Nose		Pigmentation	Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 650

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 541

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13297

**ORGAN AND ACCOUNTABLE SITE STATUS**

Pancreas	Acinus	Atrophy	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7,13-11 ]			
Stomach, Forestomach		Edema	Marked
[ Edema TGLS = 12-8 ]			
Stomach, Glandular		Edema	Marked
[ Edema TGLS = 12-8 ]			
[ Erosion TGLS = 11-8 ]			
Testes	Interstit Cell	Adenoma	
[ Adenoma TGLS = 8-7 ]			
Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 651

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13298

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Epididymis	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Pancreas	Parathyroid Gland
Salivary Glands	Seminal Vesicle	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Minimal
Adrenal Medulla		Hyperplasia	Mild
Bone Marrow		Leukemia Mononuclear	
Harderian Gland		Adenoma	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
[ Leukemia Mononuclear TGLS = 7-5 ]			
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
[ Leukemia Mononuclear TGLS = 10,11,12-3+11+12+16 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 4-15 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 651

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13298

**ORGAN AND ACCOUNTABLE SITE STATUS**

Nose	Respirat Epith	Adenoma Hyperplasia Inflammation	Papillary Moderate Suppurative, Mild
	Respirat Epith	Metaplasia Pigmentation	Squamous, Mild Mild
Note: PAPILLARY ADENOMA IS IN CROSS SECTIONS 1 + 2.			
Pituitary Gland	Pars Distalis	Adenoma	
Preputial Gland		Carcinoma Inflammation	Suppurative, Marked
Prostate		Inflammation	Suppurative, Mild
Spleen		Leukemia Mononuclear	
Testes	Bilateral, Interstit Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 652

TRT#: 7

SEX: Male

DAY ON TEST: 458

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13299

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Lymph Node, Bronchial	Pituitary Gland
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**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
[ Hemorrhage TGLS = 1-3+11. ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
	Respirat Epith	Hyperplasia	Minimal
		Pigmentation	Mild
Note: HYPERPLASIA IS MOST NOTABLE IN XS2.			
Testes	Interstit Cell	Adenoma	Multiple
[ Adenoma TGLS = 2-7. ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 653

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13300

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Mammary Gland	Parathyroid Gland
Preputial Gland	Prostate	Salivary Glands	Seminal Vesicle
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Moderate
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-5 ]			
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 8-3+13 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-7 ]			
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 6-11 ]			
Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 653

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13300

ORGAN AND ACCOUNTABLE SITE STATUS

Respirat Epith

Inflammation

Suppurative, Moderate

Metaplasia

Squamous, Mild

Pigmentation

Mild

Note: LESIONS ON MED SEPT AND MAX TURBS ADJACENT TO FB.

Pancreas

Acinus

Atrophy

Mild

Pituitary Gland

Pars Distalis

Adenoma

Skin

Basal Cell Carcinoma

[ Basal Cell Carcinoma TGLS = 2-12 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-4 ]

Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLS = 7-7 ]

Thyroid Gland

C Cell

Adenoma

Follicular Cel

Adenoma

C Cell

Hyperplasia

Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 654

TRT#: 7

DOSE: 0.2 PPM

SEX: Male

DISP: Moribund

DAY ON TEST: 460

HISTO: 13301

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Epididymis	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Pancreas	Parathyroid Gland	Pituitary Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Brain		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-1 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Mild
[ Infiltration Cellular TGLS = 6-12 ]			
[ Leukemia Mononuclear TGLS = 1-3+12 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Pigmentation	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11 ]			
Testes	Interstit Cell	Hyperplasia	Mild
Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 655

TRT#: 7

SEX: Male

DAY ON TEST: 653

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13302

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Liver	Lymph Node, Mandibular	Lymph Node, Mesenteric
Mammary Gland	Parathyroid Gland	Preputial Gland	Salivary Glands
Seminal Vesicle	Skin	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Mild
Epididymis	Bilateral	Mesothelioma Malignant	
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Moderate
Lung	Bronchiole	Pigmentation	Minimal
Lymph Node, Mediastinal		Pigmentation	Moderate
Mesentery		Mesothelioma Malignant	
[ Mesothelioma Malignant TGLS = 3,4,8-11+12+13 ]			
Nose		Pigmentation	Minimal
Pancreas		Mesothelioma Malignant	
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Distalis	Hyperplasia	Moderate
Prostate	Epithelium	Hyperplasia	Mild
Spleen		Mesothelioma Malignant	
Stomach, Forestomach		Acanthosis	Mild
Testes	Bilateral, Interstit Cell	Adenoma	
	Bilateral	Mesothelioma Malignant	
[ Adenoma TGLS = 5-7 ]			
[ Mesothelioma Malignant TGLS = 7-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 655

**TRT#:** 7

**DOSE:** 0.2 PPM

**SEX:** Male

**DISP:** Moribund

**DAY ON TEST:** 653

**HISTO:** 13302

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 656

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13303

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

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

OBSERVATIONS

Kidney		Nephropathy	Chronic, Marked
Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 3-11 ]			
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4,6-8 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLS = 1-7+12 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 657

TRT#: 7

SEX: Male

DAY ON TEST: 712

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13304

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Brain	Epididymis
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
Bone Marrow		Leukemia Mononuclear	
Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 6-5 ]			
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5,7-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Marked
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
[ Leukemia Mononuclear TGLS = 2-3 ]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 657

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 712

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13304

**ORGAN AND ACCOUNTABLE SITE STATUS**

Nose	Respirat Epith	Hyperplasia Inflammation Pigmentation	Mild Suppurative, Moderate Minimal
Note: LESIONS ON MEDIAN SEPTUM.			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-11 ]			
Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Moderate
[ Adenoma TGLS = 3-7 ] [ Hyperplasia TGLS = 9-7 ]			
Thyroid Gland	Follicular Cel	Hyperplasia	Mild
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 658

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13305

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Minimal
Adrenal Medulla		Pheochromocytoma Benign	
Heart		Cardiomyopathy	Minimal
Islets, Pancreatic		Adenoma	
[ Adenoma TGLS = 5-4 ]			
Kidney		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 2-5 ]			
Lung	Bronchiole	Pigmentation	Mild
Mammary Gland		Hyperplasia	Marked
[ Hyperplasia TGLS = 1-11 ]			
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 7-8 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Marked
[ Adenoma TGLS = 3,6-7 ]			
[ Atrophy TGLS = 4-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 659

TRT#: 7

SEX: Male

DAY ON TEST: 719

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13306

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Epididymis
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Preputial Gland
Prostate	Salivary Glands	Seminal Vesicle	Skin
Spleen	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Brain		Compression	
		Hydrocephalus	Moderate
[ Hydrocephalus TGLS = 4-1 ]			
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Liver		Hepatocellular Adenoma	
[ Hepatocellular Adenoma TGLS = 2-11 ]			
Lung	Bronchiole	Pigmentation	Minimal
Lymph Node, Bronchial		Pigmentation	Marked
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 5-7 ]			
Nose	Respirat Epith	Foreign Body	Moderate
		Hyperplasia	Minimal
		Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Note: HYPERPLASIA RELATED TOFB.			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Stomach, Forestomach		Acanthosis	Moderate
		Ulcer	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 659

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 719

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13306

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Ulcer TGLS = 7-8 ]

Stomach, Glandular

Erosion

Moderate

[ Erosion TGLS = 6-8 ]

Testes

Interstit Cell

Hyperplasia

Mild

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 660

TRT#: 7

SEX: Male

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13307

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Moderate
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Hemorrhage	Mild
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Testes	Bilateral, Interstit Cell	Adenoma	
	Seminif Tub	Atrophy	Moderate
[ Adenoma TGLS = 1-7 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 101

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13188

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Brain		Compression	
[ Compression TGLS = 4-1 ]			
Kidney		Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 5-5 ]			
Liver		Basophilic Focus	
Lung	Peribronchiolr	Pigmentation	Minimal
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 1-12 ]			
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 3-11 ]			
Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Minimal
Note: RESP EPITH HYPERPL VENTRAL,NOT ASSOC W/ FB.			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 102

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Moribund

DAY ON TEST: 681

HISTO: 13189

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Mammary Gland	Ovary	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Eye	Antr Chamber	Inflammation	Suppurative, Marked
	Cornea	Inflammation	Marked
[ Inflammation TGLS = 4-11,4-11 ]			
[ Inflammation TGLS = 4-11,4-11 ]			
Harderian Gland		Adenoma	
		Inflammation	Suppurative, Marked
[ Adenoma TGLS = 4-10 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-13 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-13 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-13 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-13 ]			
Nose		Hemorrhage	Mild
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Intermed	Adenoma	
	Pars Distalis	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 102

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 681

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13189

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 5-8 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-12 ]

Thymus

Leukemia Mononuclear

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 103

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: 13190

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose	Ovary
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

MISSING

Lymph Node, Mandibular

OBSERVATIONS

Eye [ Cataract TGLS = 3-11 ]		Cataract	Mild
Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Liver [ Clear Cell Focus TGLS = 2-14 ]		Clear Cell Focus	
Lung	Peribronchiolr	Pigmentation	Minimal
Mammary Gland [ Fibroadenoma TGLS = 1-12+13 ]		Fibroadenoma	
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland [ Cyst TGLS = 4-8 ]		Cyst	
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 104

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13191

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Lung		Carcinoma	Metastatic (Zymbal'S Gland)
[ Carcinoma TGLS = 4,5-14+15 ]			
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Marked
[ Hyperplasia TGLS = 6-7 ]			
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 2-13 ]			
Zymbal's Gland		Carcinoma	
[ Carcinoma TGLS = 1-11+12 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 105

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13192

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Ovary
Pancreas	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Medulla	Bilateral	Pheochromocytoma Benign	
Brain		Compression	
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Liver		Granuloma	Multifocal, Mild
Lung	Alveolar Epith	Hyperplasia	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Uterus		Polyp Stromal	
[ Polyp Stromal TGLS = 2-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 106

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Moribund

DAY ON TEST: 680

HISTO: 13193

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Brain		Compression	
[ Compression TGLS = 5-1 ]			
Kidney		Mineralization	Mild
[ Nephropathy TGLS = 3-5 ]		Nephropathy	Chronic, Marked
Liver		Vacuolization Cytoplasmic	Mild
Lung	Peribronchiolr	Pigmentation	Minimal
Mammary Gland		Adenocarcinoma	
[ Adenocarcinoma TGLS = 2-11+12+13+14 ]		Fibroadenoma	
[ Fibroadenoma TGLS = 1-15+16 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 107

TRT#: 2

SEX: Female

DAY ON TEST: 653

DOSE: CONTROL

DISP: Moribund

HISTO: 13194

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Nose
Ovary	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Mild
		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Minimal
Liver	Biliar Tract	Hyperplasia	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Pancreas	Acinus	Atrophy	Moderate
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Thymus		Leukemia Mononuclear	
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 108

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13195

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Liver	Lung
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Clitoral Gland	Cyst	
[ Cyst TGLS = 2-7 ]		
Heart	Cardiomyopathy	Minimal
Kidney	Nephropathy	Chronic, Moderate
[ Nephropathy TGLS = 1-5 ]		
Nose	Foreign Body	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 109

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13196

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Ovary	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Eye		Cataract	Mild
[ Cataract TGLS = 1-11 ]			
Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Minimal
Pancreas	Acinus	Atrophy	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 110

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13197

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 1-4. ]			
Lung	Alveolus	Hemorrhage	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 111

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13198

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Trachea	Urinary Bladder	

**OBSERVATIONS**

Eye		Cataract	Mild
[ Cataract TGLS = 2-14 ]			
Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 5-16 ]			
Lung		Adenocarcinoma	Metastatic (Mammary Gland)
[ Adenocarcinoma TGLS = 4-15 ]			
Mammary Gland		Adenocarcinoma	
[ Adenocarcinoma TGLS = 1-11+12+13 ]			
Pituitary Gland	Pars Distalis	Adenoma	
Thyroid Gland	C Cell	Hyperplasia	Mild
Uterus		Sarcoma Stromal	
[ Sarcoma Stromal TGLS = 3-17 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 112

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Moribund

DAY ON TEST: 703

HISTO: 13199

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Ovary
Parathyroid Gland	Salivary Glands	Skin	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Marked
Brain		Hemorrhage	Minimal
Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Chronic, Mild
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
Lung		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Mild
[ Necrosis TGLS = 3-11 ]			
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Stomach, Forestomach		Acanthosis	Moderate
		Hyperkeratosis	Moderate
		Inflammation	Suppurative, Moderate
		Ulcer	Marked
[ Ulcer TGLS = 4-8 ]			
Stomach, Glandular		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 113

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: 13200

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

MISSING

Lymph Node, Bronchial	Lymph Node, Mandibular
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OBSERVATIONS

Adrenal Medulla [ Pheochromocytoma Benign TGLS = 3-5 ]		Pheochromocytoma Benign	
Clitoral Gland [ Carcinoma TGLS = 4-7 ]		Carcinoma	
Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Liver		Basophilic Focus	
	Hepatocyte	Hyperplasia	Marked
Lung		Granuloma	Moderate
Mammary Gland [ Fibroadenoma TGLS = 1-11+12 ]		Fibroadenoma	
Pituitary Gland [ Adenoma TGLS = 2-8 ]	Pars Distalis	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 114

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13201

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Nose	Ovary	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Moderate
		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Leukemia Mononuclear	
Clitoral Gland		Hyperplasia	Moderate
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Liver	Hepatocyte	Hepatodiaphragmatic Nodule	
		Hyperplasia	Marked
		Leukemia Mononuclear	
	[ Hepatodiaphragmatic Nodule TGLS = 7-15 ]		
	[ Hyperplasia TGLS = 10-18 ]		
	[ Leukemia Mononuclear TGLS = 2-4 ]		
Lung		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 8-3+16 ]		
Lymph Node, Bronchial		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 11-7,6-19 ]		
Lymph Node, Mandibular		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 11-7,6-19 ]		
Lymph Node, Mediastinal		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 6-19,11-7 ]		
Lymph Node, Mesenteric		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 6-19,11-7 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 114

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 13201

**ORGAN AND ACCOUNTABLE SITE STATUS**

Mammary Gland [ Fibroadenoma TGLS = 1-11+12+13 ]		Fibroadenoma	
Mesentery [ Necrosis TGLS = 5-14 ]	Fat	Necrosis	Moderate
Pancreas Pituitary Gland [ Leukemia Mononuclear TGLS = 4-8 ]	Acinus	Atrophy Leukemia Mononuclear	Moderate
Spleen [ Leukemia Mononuclear TGLS = 3-4 ]		Leukemia Mononuclear	
Thymus		Leukemia Mononuclear	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 115

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Moribund

DAY ON TEST: 726

HISTO: 13202

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Liver	Lymph Node, Bronchial	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Ovary	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Brain		Compression Hydrocephalus	Moderate
[ Hydrocephalus TGLS = 3-1 ]			
Clitoral Gland		Inflammation	Suppurative, Moderate
Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Lung	Alveolar Epith	Alveolar/Bronchiolar Adenoma Hyperplasia	Marked
[ Alveolar/Bronchiolar Adenoma TGLS = 4-3 ]			
[ Hyperplasia TGLS = 4-3 ]			
Lymph Node, Mandibular		Inflammation	Chronic, Moderate
[ Inflammation TGLS = 1-7 ]			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Pancreas	Acinus	Atrophy	Moderate
Pharynx		Squamous Cell Carcinoma	
Note: DIFF DX CA OF ANY OTHER EPITH ORGAN IN THE AREA.			
Note: SL 11,12 ARE MORE XS OF HEAD FROM WET TISSUE			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

Animal Note: STEP SECTIONS OF MAND LN;NO SQ CELL CA SEEN.

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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**ANIMAL ID:** 115

**TRT#:** 2  
**DOSE:** CONTROL

**SEX:** Female  
**DISP:** Moribund

**DAY ON TEST:** 726  
**HISTO:** 13202

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 116

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13203

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 1-4. ]			
Lung	Alveolus	Hemorrhage	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 117

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13204

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lung	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney	Nephropathy	Chronic, Minimal
Liver	Basophilic Focus	
Uterus	Polyp Stromal	

[ Polyp Stromal TGLS = 2-12 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 118

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13205

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Nose	Ovary	Pancreas
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Parathyroid Gland

OBSERVATIONS

Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Minimal
[ Hemorrhage TGLS = 2-3. ]			
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 1-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 119

TRT#: 2

SEX: Female

DAY ON TEST: 660

DOSE: CONTROL

DISP: Dead

HISTO: 13206

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Liver	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Heart		Cardiomyopathy	Mild
Kidney		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Chronic, Mild
Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	

[ Adenoma TGLS = 1,2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 120

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13207

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Mandibular
Lymph Node, Mediastinal	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

**MISSING**

Lymph Node, Bronchial	Lymph Node, Mesenteric
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Larynx		Foreign Body	Mild
		Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
		Metaplasia	Squamous, Mild
Liver		Hepatodiaphragmatic Nodule	
	[ Hepatodiaphragmatic Nodule TGLS = 1-4. ]		
Lung	Alveolus	Hemorrhage	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Minimal
Nose		Hemorrhage	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 121

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Moribund

DAY ON TEST: 502

HISTO: 13208

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lung	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Larynx			
Note: GOOD EX OF CONTROL LX BASE OF EPIGLOTTIS			
Liver		Hepatodiaphragmatic Nodule Vacuolization Cytoplasmic	Mild
[ Hepatodiaphragmatic Nodule TGLS = 3-4 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Skin	Subcut Tiss	Sarcoma	
[ Sarcoma TGLS = 1-11+12+13 ]			
Spleen		Hyperplasia	Reticulum Cell, Moderate
Stomach, Forestomach		Acanthosis	Marked
		Hyperkeratosis	Mild
		Inflammation	Suppurative, Moderate
		Ulcer	Marked
[ Acanthosis TGLS = 4-8 ]			
[ Hyperkeratosis TGLS = 4-8 ]			
[ Ulcer TGLS = 4-8 ]			
Stomach, Glandular		Inflammation	Suppurative, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 122

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13209

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Lymph Node, Bronchial	Parathyroid Gland
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Artery	Mineralization	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 123

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Moribund

DAY ON TEST: 677

HISTO: 13210

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Brain		Compression	
		Hemorrhage	Moderate
Heart		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-3 ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-8 ]			
Spleen		Leukemia Mononuclear	
		Necrosis	Marked
[ Leukemia Mononuclear TGLS = 1-4 ]			
[ Necrosis TGLS = 2-4 ]			
Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 124

TRT#: 2

SEX: Female

DAY ON TEST: 625

DOSE: CONTROL

DISP: Moribund

HISTO: 13211

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lung	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Ovary	Pancreas
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Trachea	Urinary Bladder	Uterus

**MISSING**

Parathyroid Gland	Thymus
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**OBSERVATIONS**

Kidney	Nephropathy	Chronic, Mild
Liver	Angiectasis	Moderate
	Basophilic Focus	
[ Angiectasis TGLS = 2-4 ]		
Nose	Inflammation	Suppurative, Mild
Pituitary Gland	Cyst	
Thyroid Gland	Adenoma	
Tongue	Carcinoma	
[ Carcinoma TGLS = 1-11 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 125

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13212

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Larynx		Foreign Body	Mild
		Inflammation	Suppurative, Moderate
		Metaplasia	Squamous, Mild
Liver		Basophilic Focus	
		Granuloma	Multifocal, Minimal
Lung	Alveolus	Hemorrhage	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 126

TRT#: 2

SEX: Female

DAY ON TEST: 488

DOSE: CONTROL

DISP: Moribund

HISTO: 13213

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Kidney
Lung	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Larynx		Inflammation	Suppurative, Minimal
Liver		Basophilic Focus	
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 2-11+12+13+14+15 ]			
Mesentery	Fat	Necrosis	Minimal
[ Necrosis TGLS = 3-16 ]			
Spleen		Hyperplasia	Reticulum Cell, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 127

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13214

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose
Ovary	Pancreas	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Trachea
Urinary Bladder	Uterus		

MISSING

Parathyroid Gland	Thymus
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OBSERVATIONS

Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Minimal
Liver		Granuloma	Multifocal, Minimal
Lung	Alveolus	Hemorrhage	Minimal
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 3-11 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Thyroid Gland	C Cell	Adenoma	
[ Adenoma TGLS = 2-2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 128

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13215

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 2-11 ]			
Lung	Alveolus	Hemorrhage	Minimal
[ Hemorrhage TGLS = 1-3 ]			
Ovary		Granulosa Cell Tumor Benign	
Pharynx		Hyperkeratosis	Moderate
		Hyperplasia	Moderate
[ Hyperkeratosis TGLS = 4-10 ]			
[ Hyperplasia TGLS = 4-10 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 129

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13216

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	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		

**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Lung	Alveolus	Hemorrhage	Minimal
Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[ Fibrosis TGLS = 1-4 ]			
[ Leukemia Mononuclear TGLS = 1-4 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 130

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: 13217

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Cortex		Necrosis	Moderate
Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 1-11 ]			
Kidney		Nephropathy	Chronic, Minimal
Liver		Vacuolization Cytoplasmic	Minimal
Lung	Alveolus	Hemorrhage	Mild
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 2-12 ]			
Nose	Respirat Epith	Hyperplasia	Minimal
	Nasolacrim Dct	Inflammation	Suppurative, Mild
	Respirat Epith	Metaplasia	Squamous, Minimal
Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
[ Adenoma TGLS = 3-8 ]			
[ Cyst TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 131

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 13218

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lung	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

**MISSING**

Lymph Node, Bronchial

**INSUFFICIENT TISSUE**

Stomach, Forestomach                      Stomach, Glandular

**OBSERVATIONS**

Adrenal Cortex	Cytomegaly	Mild
Kidney	Nephropathy	Chronic, Moderate
Larynx	Inflammation	Chronic, Minimal
Liver	Granuloma	Multifocal, Minimal

**PRIMARY CAUSE OF DEATH**                      -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 132

TRT#: 2

SEX: Female

DAY ON TEST: 639

DOSE: CONTROL

DISP: Moribund

HISTO: 13219

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lung	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Nose	Ovary	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

**MISSING**

Adrenal Medulla

**OBSERVATIONS**

Brain		Compression	
		Hemorrhage	Mild
		Hydrocephalus	Moderate
[ Hydrocephalus TGLS = 2-1 ]			
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Pancreas		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 133

TRT#: 2

SEX: Female

DAY ON TEST: 705

DOSE: CONTROL

DISP: Moribund

HISTO: 13220

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

MISSING

Lymph Node, Bronchial	Parathyroid Gland
-----------------------	-------------------

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Kidney		Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-4 ]			
Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 134

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Dead

DAY ON TEST: 686

HISTO: 13221

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Clitoral Gland
Esophagus	Heart	Intestine Large, Rectum	Islets, Pancreatic
Larynx	Mammary Gland	Ovary	Pancreas
Pituitary Gland	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Parathyroid Gland

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Large, Colon	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Lung	Alveolus	Hemorrhage	Moderate
		Leukemia Mononuclear	
[ Hemorrhage TGLS = 3-11+12 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Inflammation	Suppurative, Moderate
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-4 ]			
Uterus		Polyp Stromal	
[ Polyp Stromal TGLS = 2-13 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 134

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 686

**DOSE:** CONTROL

**DISP:** Dead

**HISTO:** 13221

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 135

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13222

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Ovary
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 136

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13223

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Larynx	Liver	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Minimal
Islets, Pancreatic		Hyperplasia	Minimal
Kidney		Nephropathy	Chronic, Moderate
Nose	Respirat Epith	Hyperplasia	Mild
Ovary		Cyst	
[ Cyst TGLS = 1-7 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 137

TRT#: 2

SEX: Female

DAY ON TEST: 639

DOSE: CONTROL

DISP: Moribund

HISTO: 13224

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Brain		Compression	
		Hydrocephalus	Moderate
[ Hydrocephalus TGLS = 2-1 ]			
Kidney		Nephropathy	Chronic, Moderate
Liver		Basophilic Focus	
		Granuloma	Multifocal, Mild
Nose		Hemorrhage	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 138

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Moribund

DAY ON TEST: 376

HISTO: 13225

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mesenteric	Mammary Gland
Nose	Ovary	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Kidney		Carcinoma	
		Nephropathy	Chronic, Minimal
[ Carcinoma TGLS = 1-11+12. ]			
Larynx		Inflammation	Suppurative, Minimal
Lung	Alveolus	Hemorrhage	Minimal
Lymph Node, Mediastinal		Hemorrhage	Mild
[ Hemorrhage TGLS = 5-2. ]			
Mesentery		Thrombosis	
[ Thrombosis TGLS = 2-14. ]			
Pancreas		Carcinoma	Metastatic (Kidney)
Spleen		Hyperplasia	Reticulum Cell, Mild
[ Hyperplasia TGLS = 4-4. ]			
Stomach, Forestomach		Acanthosis	Mild
		Hyperkeratosis	Mild
		Inflammation	Suppurative, Minimal
[ Acanthosis TGLS = 6-13. ]			
Stomach, Glandular		Inflammation	Suppurative, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 139

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: 13226

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Nose
Ovary	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder			

MISSING

Adrenal Medulla

OBSERVATIONS

Brain		Compression	
Kidney		Nephropathy	Chronic, Moderate
Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 2-11 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Minimal
		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-4 ]			
Thymus		Leukemia Mononuclear	
Uterus	Bilateral	Polyp Stromal	
[ Polyp Stromal TGLS = 3,4-12+13 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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**ANIMAL ID:** 139

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 13226

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 140

TRT#: 2

SEX: Female

DAY ON TEST: 681

DOSE: CONTROL

DISP: Moribund

HISTO: 13227

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Clitoral Gland
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Liver	Lung	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pituitary Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Moderate
Adrenal Medulla		Pheochromocytoma Benign	
Heart		Cardiomyopathy	Mild
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Marked
[ Nephropathy TGSL = 1-5 ]			
Nose		Inflammation	Suppurative, Mild
Pancreas	Acinus	Atrophy	Mild
Parathyroid Gland		Hyperplasia	Moderate
Spleen		Fibrosis	Mild
[ Fibrosis TGSL = 2-4 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 141

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Moribund

DAY ON TEST: 683

HISTO: 13228

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Nose
Ovary	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Brain	Compression	
Heart	Thrombosis	
Kidney	Nephropathy	Chronic, Moderate
Liver	Hepatocellular Adenoma	
	Leukemia Mononuclear	
	Vacuolization Cytoplasmic	Moderate
[ Hepatocellular Adenoma TGLS = 3-11 ]		
Lung	Leukemia Mononuclear	
Lymph Node, Bronchial	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7,6-6 ]		
Lymph Node, Mandibular	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7,6-6 ]		
Lymph Node, Mediastinal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7,6-6 ]		
Lymph Node, Mesenteric	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7,6-6 ]		
Pancreas	Atrophy	Mild
Pituitary Gland	Adenoma	
[ Adenoma TGLS = 1-8 ]		
Spleen	Fibrosis	Marked
	Leukemia Mononuclear	
[ Fibrosis TGLS = 4-13 ]		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 141

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 683

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13228

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Leukemia Mononuclear TGLS = 2-12+13 ]

Thyroid Gland

C Cell

Hyperplasia

Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 142

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13229

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Liver	Lung
Lymph Node, Mandibular	Lymph Node, Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

**MISSING**

Adrenal Medulla	Lymph Node, Bronchial	Lymph Node, Mediastinal
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**OBSERVATIONS**

Clitoral Gland		Hyperplasia	Moderate
Kidney		Nephropathy	Chronic, Minimal
Mammary Gland		Adenocarcinoma	Multiple
[ Adenocarcinoma TGLS = 1,2-11+12+13+14 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 143

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13230

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Mild
Kidney		Nephropathy	Chronic, Minimal
Larynx		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
Lung		Granuloma	Mild
	Alveolus	Hemorrhage	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Minimal
Pharynx		Hyperplasia	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
Spleen		Leukemia Mononuclear	
Thyroid Gland	C Cell	Adenoma	
	Follicular Cel	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 144

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13231

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Granuloma	Multifocal, Minimal
Lung	Alveolus	Hemorrhage	Minimal
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
Mesentery	Fat	Mineralization	Moderate
	Fat	Necrosis	Moderate
[ Necrosis TGLS = 1-11. ]			
Stomach, Forestomach		Acanthosis	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 145

TRT#: 2

SEX: Female

DAY ON TEST: 709

DOSE: CONTROL

DISP: Moribund

HISTO: 13232

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lung	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Adrenal Medulla		Hyperplasia	Mild
Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 1-12 ]			
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Suppurative, Minimal
Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 3,4-4+11 ]			
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 2-12+13 ]			
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Hyperplasia	Reticulum Cell, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 146

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13233

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Kidney [ Nephropathy TGLS = 3-5. ]		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
Lung [ Hemorrhage TGLS = 2-3. ]	Alveolus	Hemorrhage	Minimal
Pituitary Gland [ Adenoma TGLS = 1-8. ]	Pars Distalis	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 147

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13234

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lung	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Nose	Ovary	Pancreas
Salivary Glands	Skin	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 1-13 ]			
Kidney		Nephropathy	Chronic, Minimal
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 2-12 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Spleen		Fibrosis	Moderate
[ Fibrosis TGLS = 4-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 148

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13235

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Clitoral Gland		Hyperplasia	Moderate
		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 1-7+11 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Granuloma	Multifocal, Mild
Pituitary Gland	Pars Distalis	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 149

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13236

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Ovary
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Trachea	Urinary Bladder
Uterus			

**MISSING**

Parathyroid Gland

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Moderate
Lung		Granuloma	Minimal
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Intermed	Adenoma	
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 150

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 13237

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Liver
Lung	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

**MISSING**

Lymph Node, Mediastinal	Thymus
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Nose		Foreign Body	Moderate
		Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 151

TRT#: 2

SEX: Female

DAY ON TEST: 459

DOSE: CONTROL

DISP: Interval Sacrifice

HISTO: 13238

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Heart		Thrombosis	
Kidney		Nephropathy	Chronic, Mild
[ Nephropathy TGLS = 1-5. ]			
Lung	Alveolus	Hemorrhage	Minimal
Nose	Nasolacrim Dct	Hemorrhage	Mild
Pancreas	Acinus	Atrophy	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 152

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13239

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Uterus	

OBSERVATIONS

Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Mild
Kidney	Pelvis, Transit Epithe	Hyperplasia Mineralization Nephropathy	Moderate Mild Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Liver		Hepatodiaphragmatic Nodule Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 6-12 ]			
[ Leukemia Mononuclear TGLS = 4-4 ]			
Nose		Hemorrhage	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11 ]			
Stomach, Forestomach		Acanthosis	Minimal
Urinary Bladder	Transit Epithe	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 153

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13240

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Larynx
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Adrenal Medulla		Hyperplasia	Minimal
Brain		Compression	
		Hydrocephalus	Moderate
[ Hydrocephalus TGLS = 4-1 ]			
Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 3-12 ]			
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
Lung	Alveolus	Hemorrhage	Mild
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 2-11+13 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 154

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13241

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Esophagus	Eye	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lung	Lymph Node, Mandibular	Lymph Node, Mesenteric	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Trachea	Urinary Bladder	Uterus

**MISSING**

Lymph Node, Bronchial	Lymph Node, Mediastinal
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**OBSERVATIONS**

Clitoral Gland		Hyperplasia Inflammation	Moderate Suppurative, Moderate
[ Hyperplasia TGLS = 2-7 ]			
Kidney		Mineralization Nephropathy	Mild Chronic, Mild
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 4-12 ]			
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 5-13 ]			
Mesentery	Fat	Necrosis	Minimal
[ Necrosis TGLS = 3-14 ]			
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 155

TRT#: 2

SEX: Female

DAY ON TEST: 640

DOSE: CONTROL

DISP: Dead

HISTO: 13242

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Islets, Pancreatic	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Urinary Bladder	Uterus	

MISSING

Parathyroid Gland

AUTO PRECLUDES DIAG.

Intestine Small, Jejunum

OBSERVATIONS

Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Larynx		Foreign Body	Moderate
		Inflammation	Chronic, Moderate
Lung		Foreign Body	Marked
	Alveolus	Inflammation	Suppurative, Marked
			[ Foreign Body TGLS = 1-3+11 ]
			[ Inflammation TGLS = 3-3+11 ]
Nose		Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Adenoma	
			[ Adenoma TGLS = 2-8 ]
Trachea		Inflammation	Suppurative, Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 156

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Moribund

DAY ON TEST: 719

HISTO: 13243

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-15 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-15 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-15 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-15 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2,6-11+12 ]			
Stomach, Forestomach		Ulcer	Marked
[ Ulcer TGLS = 5-13 ]			
Stomach, Glandular		Erosion	Moderate

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 156

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 719

**DOSE:** CONTROL

**DISP:** Moribund

**HISTO:** 13243

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Erosion TGLS = 7-14 ]

Thymus

Leukemia Mononuclear

Thyroid Gland

C Cell

Hyperplasia

Minimal

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 157

TRT#: 2

SEX: Female

DAY ON TEST: 733

DOSE: CONTROL

DISP: Terminal Sacrifice

HISTO: 13244

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lung	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose	Ovary
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Moderate
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 2-12 ]			
Mesentery		Hemorrhage	Marked
[ Hemorrhage TGLS = 1-11 ]		Necrosis	Minimal
	Fat		
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 158

TRT#: 2

SEX: Female

DAY ON TEST: 376

DOSE: CONTROL

DISP: Moribund

HISTO: 13245

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Kidney
Larynx	Lymph Node, Bronchial	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Liver		Pigmentation	Hemosiderin, Moderate
Lung	Alveolus	Hemorrhage	Minimal
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
[ Hyperplasia TGLS = 1-7. ]			
Nose	Respirat Epith	Hyperplasia	Minimal
Note: HYPERPL ON TIPS OF MAX TURBS IN XS 1.			
Spleen		Pigmentation	Hemosiderin, Marked
Stomach, Forestomach		Acanthosis	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 159

TRT#: 2

DOSE: CONTROL

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 733

HISTO: 13246

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Clitoral Gland		Cyst	
[ Cyst TGLS = 1-7 ]			
Kidney		Mineralization	Mild
[ Nephropathy TGLS = 5-5 ]		Nephropathy	Chronic, Marked
Liver	Biliar Tract	Cyst	
[ Cyst TGLS = 4-12 ]		Leukemia Mononuclear	
Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Hemorrhage	Marked
[ Hemorrhage TGLS = 6-6 ]		Leukemia Mononuclear	
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 159

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 733

**DOSE:** CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 13246

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Thyroid Gland

C Cell

Adenoma

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 160

TRT#: 2

SEX: Female

DAY ON TEST: 663

DOSE: CONTROL

DISP: Moribund

HISTO: 13247

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Parathyroid Gland	Salivary Glands
Skin	Stomach, Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Brain		Compression	
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	
Stomach, Forestomach		Acanthosis	Mild
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

---

**ANIMAL ID:** 301

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13548

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Nose

Trachea

---

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 1,3-4. ]

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 2-3. ]

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 302

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13549

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Lung Trachea

**OBSERVATIONS**

Clitoral Gland		Cyst Inflammation	Suppurative, Marked
[ Cyst TGLS = 1-11 ]			
[ Inflammation TGLS = 1-11 ]			
Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 3-4 ]			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 303

TRT#: 4

SEX: Female

DAY ON TEST: 694

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13550

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lung	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Kidney		Nephropathy	Chronic, Moderate
Liver		Vacuolization Cytoplasmic	Marked
[ Vacuolization Cytoplasmic TGLS = 2,3,4-4 ]			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Marked
Stomach, Forestomach		Acanthosis	Moderate
		Hyperkeratosis	Mild
Tongue		Carcinoma	
[ Carcinoma TGLS = 1-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 304

TRT#: 4

SEX: Female

DAY ON TEST: 459

DOSE: 0.01 PPM

DISP: Interval Sacrifice

HISTO: 13551

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Liver

Clear Cell Focus

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 1-4. ]

Lung

Alveolus

Hemorrhage

Minimal

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Minimal

Bronchiole

Pigmentation

Minimal

[ Hemorrhage TGLS = 2-3. ]

Nose

Pigmentation

Minimal

Trachea

Inflammation

Chronic, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 305	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 0.01 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13552

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx	Trachea
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Moderate
Lung	Alveolus	Hemorrhage	Minimal
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 306

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13553

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Lung

Trachea

**OBSERVATIONS**

Adrenal Cortex

[ Cytomegaly TGLS = 6-5 ]

Cytomegaly

Marked

Kidney

Nephropathy

Chronic, Moderate

Mammary Gland

[ Fibroadenoma TGLS = 1,2-12+13 ]

Fibroadenoma

Multiple

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 5-11 ]

Uterus

Polyp Stromal

[ Polyp Stromal TGLS = 4-11 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 307	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 0.01 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13554

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx	Lung	Trachea
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**OBSERVATIONS**

Kidney [ Nephropathy TGLS = 5-5 ]		Nephropathy	Chronic, Moderate
Mammary Gland [ Fibroadenoma TGLS = 1,2,3-11+12+13 ]		Fibroadenoma	Multiple
Mesentery [ Necrosis TGLS = 4-14 ]	Fat	Necrosis	Marked
Nose		Pigmentation	Minimal

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 308	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 0.01 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13555

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Trachea

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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 4-4 ]			
Lung	Bronchiole	Pigmentation	Minimal
Mammary Gland		Adenocarcinoma	
		Fibroadenoma	Multiple
[ Adenocarcinoma TGLS = 1-11 ]			
[ Fibroadenoma TGLS = 2,3-12+13 ]			
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 5-14 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 6-8 ]			

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

**ANIMAL ID:** 309

**TRT#:** 4  
**DOSE:** 0.01 PPM

**SEX:** Female  
**DISP:** Dead

**DAY ON TEST:** 521  
**HISTO:** 13556

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Nose	Ovary	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Brain		Compression	
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
[ Adenoma TGLS = 3-8 ]			
[ Cyst TGLS = 3-8 ]			
Spleen		Ectopic Tissue	
		Leukemia Mononuclear	
[ Ectopic Tissue TGLS = 4-11 ]			
[ Leukemia Mononuclear TGLS = 2-11 ]			
Thymus		Leukemia Mononuclear	

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 310

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13557

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-5 ]			
Larynx		Metaplasia	Squamous, Minimal
Lung	Alveolus	Hemorrhage	Minimal
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 3-11 ]			
Nose		Hemorrhage	Mild
		Pigmentation	Minimal
Ovary		Cyst	
[ Cyst TGLS = 2-7 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 311

TRT#: 4

SEX: Female

DAY ON TEST: 683

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13558

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Liver	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Glandular
Thymus	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Mild
Brain		Compression	
		Hydrocephalus	Moderate
[ Hydrocephalus TGLS = 2-1 ]			
Harderian Gland	Duct	Carcinoma	
Kidney		Nephropathy	Chronic, Moderate
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Intermed	Adenoma	
[ Adenoma TGLS = 1-11,1-11 ]			
[ Adenoma TGLS = 1-11,1-11 ]			
Stomach, Forestomach		Acanthosis	Moderate
		Erosion	Marked
		Hyperkeratosis	Moderate
Thyroid Gland		Ultimobranchial Cyst	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 312	<b>TRT#:</b> 4 <b>DOSE:</b> 0.01 PPM	<b>SEX:</b> Female <b>DISP:</b> Interval Sacrifice	<b>DAY ON TEST:</b> 459 <b>HISTO:</b> 13559
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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Larynx	Trachea
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Minimal
	Artery	Mineralization	Minimal
[ Hemorrhage TGLS = 2-3. ]			
Lymph Node, Mediastinal		Hemorrhage	Mild
[ Hemorrhage TGLS = 1-2. ]			
Nose		Pigmentation	Minimal

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:13  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 313	<b>TRT#:</b> 4	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 732
	<b>DOSE:</b> 0.01 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13560

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Clitoral Gland	Trachea
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Liver		Hepatodiaphragmatic Nodule	
	[ Hepatodiaphragmatic Nodule TGLS = 2-4 ]		
Lung	Alveolus	Hemorrhage	Minimal
Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLS = 1-11 ]		
Nose		Pigmentation	Minimal

---

**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 314

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13561

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Trachea

---

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 1-3. ]

Nose

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 315

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13562

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Lymph Node, Mandibular

Trachea

---

**MISSING**

Larynx

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**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Lung

Alveolus

Hemorrhage

Minimal

Nose

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 316

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13563

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Larynx

Trachea

OBSERVATIONS

Eye

Cataract

Mild

[ Cataract TGLS = 2-11 ]

Kidney

Nephropathy

Chronic, Moderate

Lung

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Mild

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-13 ]

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

Cyst

[ Adenoma TGLS = 3-8 ]

Uterus

Polyp Stromal

[ Polyp Stromal TGLS = 4-12 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

---

**ANIMAL ID:** 317

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13564

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Trachea

---

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Lung

Alveolus

Hemorrhage

Minimal

Nose

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

**ANIMAL ID:** 318

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13565

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Moderate

Lung

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 319

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13566

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Lung	Bronchiole	Pigmentation	Minimal
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 1-11 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Thyroid Gland	Follicular Cel	Carcinoma	
[ Carcinoma TGLS = 2-2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 320

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13567

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

OBSERVATIONS

Clitoral Gland

Cyst

Inflammation

Suppurative, Moderate

[ Cyst TGLS = 3-7 ]

[ Inflammation TGLS = 3-7 ]

Kidney

Nephropathy

Chronic, Moderate

Larynx

Foreign Body

Mild

Metaplasia

Squamous, Mild

Liver

Clear Cell Focus

Hepatocellular Adenoma

[ Clear Cell Focus TGLS = 1-4 ]

[ Hepatocellular Adenoma TGLS = 2-4 ]

Lung

Bronchiole

Pigmentation

Minimal

Nose

Respirat Epith

Hyperplasia

Mild

Inflammation

Suppurative, Marked

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 4-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 321

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13568

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Clitoral Gland

Cyst

Hyperplasia

Moderate

[ Cyst TGLS = 4-7 ]

Kidney

Nephropathy

Chronic, Marked

[ Nephropathy TGLS = 2-5 ]

Larynx

Metaplasia

Squamous, Minimal

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 1-4 ]

Lung

Alveolus

Hemorrhage

Minimal

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 3-11 ]

Nose

Pigmentation

Minimal

Pituitary Gland

Cyst

Pars Distalis

Hyperplasia

Moderate

Pars Intermed

Hyperplasia

Marked

[ Cyst TGLS = 5-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 322

TRT#: 4

DOSE: 0.01 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 681

HISTO: 13569

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach, Forestomach	Stomach, Glandular
Thyroid Gland	Trachea	Urinary Bladder	Uterus

MISSING

Clitoral Gland

OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Brain		Compression	
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Liver		Angiectasis	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
[ Leukemia Mononuclear TGLS = 2-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 3-11 ]			
Pituitary Gland	Pars Distalis	Adenoma	
	Pars Nervosa	Hamartoma	
[ Adenoma TGLS = 5-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 322

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 681

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13569

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Thymus

Leukemia Mononuclear

Vagina

Note: SECTION ON SL 12 IS UTERUS/CERVIX,NORMAL.

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 323

TRT#: 4

SEX: Female

DAY ON TEST: 659

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13570

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Clitoral Gland	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Thyroid Gland	Trachea
Urinary Bladder			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Bone Marrow		Myelofibrosis	Mild
Kidney		Leukemia Mononuclear	
		Mineralization	Mild
		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	Multiple
[ Fibroadenoma TGLS = 1,3-11+12+13 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
		Leukemia Mononuclear	
Note: PCOD IS RELATED TO CYST/MCL INFILT,NOT ADENOMA.			
[ Adenoma TGLS = 2-8 ]			
[ Leukemia Mononuclear TGLS = 2-8 ]			
Spleen		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 323

**TRT#:** 4

**DOSE:** 0.01 PPM

**SEX:** Female

**DISP:** Moribund

**DAY ON TEST:** 659

**HISTO:** 13570

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Stomach, Forestomach

Acanthosis

Marked

Hyperkeratosis

Moderate

Inflammation

Suppurative, Moderate

[ Acanthosis TGLS = 6-8 ]

Stomach, Glandular

Inflammation

Suppurative, Moderate

Thymus

Leukemia Mononuclear

Uterus

Polyp Stromal

[ Polyp Stromal TGLS = 4-8 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 324

TRT#: 4

DOSE: 0.01 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 654

HISTO: 13571

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Thymus	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
		Mineralization	Mild
		Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
[ Adenoma TGLS = 2-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Stomach, Forestomach		Acanthosis	Mild
		Inflammation	Suppurative, Mild
		Ulcer	Moderate
[ Ulcer TGLS = 4-8 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 324

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 654

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13571

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Stomach, Glandular

Inflammation

Suppurative, Mild

Thyroid Gland

C Cell

Adenoma

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 325

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13572

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Lung

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

Multiple

[ Fibroadenoma TGLS = 1,2-11+12 ]

Nose

Respirat Epith

Hyperplasia

Minimal

Inflammation

Suppurative, Minimal

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 326

TRT#: 4

DOSE: 0.01 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 668

HISTO: 13573

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Clitoral Gland	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear Necrosis	Marked
[ Necrosis TGLS = 6-5 ]			
Adrenal Medulla		Leukemia Mononuclear	
Brain		Hemorrhage	Minimal
[ Hemorrhage TGLS = 2-1 ]			
Kidney		Mineralization Nephropathy	Minimal Chronic, Mild
Liver		Hepatodiaphragmatic Nodule Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 4-12 ]			
[ Leukemia Mononuclear TGLS = 5-4+12 ]			
Lung	Bronchiole	Leukemia Mononuclear Pigmentation	Minimal
[ Leukemia Mononuclear TGLS = 7-3+11 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:13

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

**Lab:** BNW

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**ANIMAL ID:** 326

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 668

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13573

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

Animal Note: NECROTIC FOCUS LOOKS LIKE INFARCT,PROBLY FROM MCL

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 327

TRT#: 4

DOSE: 0.01 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 654

HISTO: 13574

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Brain		Compression	
Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 2-12+13 ]			
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Larynx		Inflammation	Suppurative, Mild
Liver		Basophilic Focus	
		Granuloma	Multifocal, Mild
Lung	Alveolus	Hemorrhage	Minimal
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 3-11 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 328

TRT#: 4

SEX: Female

DAY ON TEST: 705

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13575

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Nose	Ovary	Salivary Glands
Skin	Spleen	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Liver		Vacuolization Cytoplasmic	Moderate
[ Vacuolization Cytoplasmic TGLS = 2-4 ]			
Pancreas	Artery	Inflammation	Moderate
Parathyroid Gland		Hyperplasia	Mild
[ Hyperplasia TGLS = 4-2 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Stomach, Forestomach		Acanthosis	Moderate
		Erosion	Marked
		Hyperkeratosis	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 329

TRT#: 4

SEX: Female

DAY ON TEST: 459

DOSE: 0.01 PPM

DISP: Interval Sacrifice

HISTO: 13576

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx Trachea

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Minimal
[ Hemorrhage TGLS = 3-3. ]			
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 1-12+13+14. ]			
Nose		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 330

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13577

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Islets, Pancreatic

[ Adenoma TGLS = 2-4 ]

Adenoma

Kidney

Nephropathy

Chronic, Mild

Larynx

Metaplasia

Squamous, Minimal

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 1-4 ]

Lung

Bronchiole

Pigmentation

Minimal

Nose

Nasolacrim Dct

Inflammation

Suppurative, Mild

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:13

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 331

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13578

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Clitoral Gland

[ Carcinoma TGLS = 1-7 ]

Carcinoma

Kidney

Nephropathy

Chronic, Mild

Larynx

Metaplasia

Squamous, Minimal

Lung

Bronchiole

Pigmentation

Minimal

Nose

Nasolacrim Dct

Inflammation

Suppurative, Mild

Pituitary Gland

Pars Distalis

Adenoma

Minimal

Cyst

[ Adenoma TGLS = 2-8 ]

[ Cyst TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 332

TRT#: 4

SEX: Female

DAY ON TEST: 638

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13579

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Mammary Gland	Nose	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach, Forestomach
Thymus	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Kidney		Leukemia Mononuclear Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-7 ]			
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[ Hyperplasia TGLS = 3-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11 ]			
Stomach, Glandular		Erosion	Marked
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 333

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13580

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Brain

Hemorrhage

Moderate

[ Hemorrhage TGLS = 5-1 ]

Kidney

Nephropathy

Chronic, Mild

Liver

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 2-4 ]

Lung

Leukemia Mononuclear

Bronchiole

Pigmentation

Minimal

Nose

Nasolacrim Dct

Inflammation

Suppurative, Mild

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

Cyst

[ Adenoma TGLS = 3-8 ]

[ Cyst TGLS = 3-8 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-11 ]

Uterus

Endometrium

Hyperplasia

Mild

[ Hyperplasia TGLS = 4-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 334

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13581

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Esophagus [ Inflammation TGLS = 1-11 ]	Mediastinum	Inflammation	Granulomatous, Moderate
Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Chronic, Mild
		Metaplasia	Squamous, Moderate
Liver [ Leukemia Mononuclear TGLS = 3-4 ]		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Pituitary Gland [ Cyst TGLS = 2-8 ]		Cyst	
Spleen [ Leukemia Mononuclear TGLS = 4-4 ]		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 335

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13582

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Lung

Alveolar Epith

Hyperplasia

Moderate

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Mild

Bronchiole

Pigmentation

Minimal

[ Hyperplasia TGLS = 4-3 ]

[ Infiltration Cellular TGLS = 4-3 ]

Lymph Node

Renal

Hyperplasia

Lymphoid, Marked

Renal

Pigmentation

Mild

[ Hyperplasia TGLS = 3-13 ]

[ Pigmentation TGLS = 3-13 ]

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11+12 ]

Nose

Respirat Epith

Foreign Body

Marked

Hyperplasia

Marked

Inflammation

Suppurative, Moderate

Pigmentation

Minimal

Pituitary Gland

Cyst

[ Cyst TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 336

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13583

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Nose Trachea

**OBSERVATIONS**

Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Minimal
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
	[ Infiltration Cellular TGLS = 2-3 ]		
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 1-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 337

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13584

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**MISSING**

Adrenal Medulla

**OBSERVATIONS**

Adrenal Cortex

[ Carcinoma TGLS = 1-12 ]

Kidney

Larynx

Lung

[ Hemorrhage TGLS = 3,4-3+11 ]

Nose

Uterus

[ Polyp Stromal TGLS = 2-13 ]

Carcinoma

Nephropathy

Metaplasia

Carcinoma

Hemorrhage

Pigmentation

Polyp Stromal

Chronic, Mild

Squamous, Minimal

Metastatic (Adrenal Cortex)

Mild

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 338

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13585

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Nose

Trachea

---

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Lung

Alveolus

Hemorrhage

Mild

[ Hemorrhage TGLS = 1-3. ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 339

TRT#: 4

SEX: Female

DAY ON TEST: 709

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13586

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose
Ovary	Pancreas	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Kidney		Mineralization	Minimal
		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Liver		Basophilic Focus	
		Leukemia Mononuclear	
Lung	Bronchiole	Pigmentation	Minimal
Mammary Gland		Adenoacanthoma	
[ Adenoacanthoma TGLS = 1-11 ]			
Parathyroid Gland		Hyperplasia	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-12 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 340

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13587

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 1-4 ]

Lung

Alveolus

Hemorrhage

Minimal

Nose

Pigmentation

Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 341

TRT#: 4

SEX: Female

DAY ON TEST: 565

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13588

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Brain	Clitoral Gland	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Nose	Ovary
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Adrenal Cortex	Leukemia Mononuclear	
Adrenal Medulla	Leukemia Mononuclear	
Bone Marrow	Leukemia Mononuclear	
Kidney	Leukemia Mononuclear	
	Nephropathy	Chronic, Mild
Liver	Eosinophilic Focus	
	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-4 ]		
Lung	Leukemia Mononuclear	
Lymph Node, Bronchial	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-2,5-12 ]		
Lymph Node, Mandibular	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-2,5-12 ]		
Lymph Node, Mediastinal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-2,5-12 ]		
Lymph Node, Mesenteric	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-2,5-12 ]		
Pancreas	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-11 ]		
Spleen	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-11 ]		
Thymus	Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 341

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 565

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13588

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 342

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13589

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Lung

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 343

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13590

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Spleen

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Lung

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11 ]

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 3-8 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 344

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13591

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Clitoral Gland

Trachea

---

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Larynx

Metaplasia

Squamous, Minimal

Lung

Alveolus

Hemorrhage

Minimal

Bronchiole

Pigmentation

Minimal

Nose

Nasolacrim Dct

Inflammation

Suppurative, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 345

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.01 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13592

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Liver

Hepatocellular Adenoma

[ Hepatocellular Adenoma TGLS = 1-4 ]

Lung

Alveolus

Hemorrhage

Minimal

[ Hemorrhage TGLS = 2-3. ]

Nose

Pigmentation

Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 346

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13593

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Larynx		Metaplasia	Squamous, Minimal
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 4-4 ]			
Lung		Carcinoma	Metastatic (Thyroid Gland)
	Alveolar Epith	Hyperplasia	Mild
	Bronchiole	Pigmentation	Minimal
Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Thyroid Gland	C Cell	Carcinoma	
[ Carcinoma TGLS = 1-2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 347

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13594

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Clitoral Gland

[ Carcinoma TGLS = 1-7 ]

Carcinoma

Kidney

[ Nephropathy TGLS = 5-5 ]

Nephropathy

Chronic, Marked

Liver

[ Hepatodiaphragmatic Nodule TGLS = 3-4 ]

Hepatodiaphragmatic Nodule

Lung

Artery

Mineralization

Minimal

Bronchiole

Pigmentation

Minimal

Mammary Gland

[ Fibroadenoma TGLS = 2-11 ]

Fibroadenoma

Mesentery

Fat

Inflammation

Granulomatous, Moderate

[ Inflammation TGLS = 6-12 ]

Necrosis

Moderate

[ Necrosis TGLS = 6-12 ]

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 4-8 ]

Stomach, Forestomach

Acanthosis

Marked

Stomach, Glandular

Ulcer

Marked

Mineralization

Marked

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 348

TRT#: 4

SEX: Female

DAY ON TEST: 621

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13595

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Nose	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Mild
Kidney		Mineralization	Minimal
		Nephropathy	Chronic, Moderate
Liver		Vacuolization Cytoplasmic	Moderate
[ Vacuolization Cytoplasmic TGLS = 2-4 ]			
Lung	Alveolar Epith	Hyperplasia	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Marked
Thyroid Gland	C Cell	Adenoma	
Zymbal's Gland		Carcinoma	
[ Carcinoma TGLS = 1-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 349

TRT#: 4

DOSE: 0.01 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 732

HISTO: 13596

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex

Trachea

**OBSERVATIONS**

Adrenal Medulla

[ Pheochromocytoma Malignant TGLS = 4-5 ]

Pheochromocytoma Malignant

Kidney

Nephropathy

Chronic, Moderate

Larynx

Metaplasia

Squamous, Mild

Liver

Clear Cell Focus

[ Clear Cell Focus TGLS = 2-4 ]

Lung

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11 ]

Nose

Respirat Epith

Hyperplasia

Moderate

Inflammation

Suppurative, Marked

Pigmentation

Minimal

Spleen

Fibrosis

Marked

[ Fibrosis TGLS = 3-12 ]

Stomach, Forestomach

Muscularis

Hypoplasia

Marked

[ Hypoplasia TGLS = 6-14 ]

Uterus

Polyp Stromal

[ Polyp Stromal TGLS = 5-13 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 350

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13597

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Marked

Lung

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11 ]

Nose

Pigmentation

Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 351

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13598

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Lung Trachea

**OBSERVATIONS**

Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Liver		Hepatodiaphragmatic Nodule	
	[ Hepatodiaphragmatic Nodule TGLS = 3-11 ]		
Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLS = 1,2-12+13 ]		
Nose	Respirat Epith	Hyperplasia	Mild
		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 352

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13599

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla

Lung

Trachea

**OBSERVATIONS**

Adrenal Cortex

Cytomegaly

Marked

Hemorrhage

Moderate

[ Cytomegaly TGLS = 3-5 ]

Kidney

Nephropathy

Chronic, Moderate

Larynx

Metaplasia

Squamous, Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11 ]

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 353

TRT#: 4

DOSE: 0.01 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 691

HISTO: 13600

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach, Glandular	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Brain		Compression	
Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 2-12 ]			
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Liver		Leukemia Mononuclear	
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Bronchiole	Pigmentation	Minimal
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-11 ]			
Spleen		Leukemia Mononuclear	
Stomach, Forestomach		Acanthosis	Marked
		Erosion	Marked
		Hyperkeratosis	Marked
[ Erosion TGLS = 4-8 ]			
Thymus		Cyst	
Thyroid Gland	C Cell	Hyperplasia	Minimal
		Ultimobranchial Cyst	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 354

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13601

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Larynx

Trachea

---

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Lung

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11 ]

Nose

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 355

TRT#: 4

SEX: Female

DAY ON TEST: 724

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13602

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Clitoral Gland

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Suppurative, Mild
		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1,2-3 ]			
Lymph Node	Renal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-12 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 355

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 724

**DOSE:** 0.01 PPM

**DISP:** Moribund

**HISTO:** 13602

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Spleen

Fibrosis

Moderate

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-11 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 356

TRT#: 4

DOSE: 0.01 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 625

HISTO: 13603

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Brain	Clitoral Gland	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lung	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
Adrenal Medulla		Hyperplasia	Moderate
Bone Marrow		Myelofibrosis	Mild
Heart		Leukemia Mononuclear	
Kidney		Mineralization	Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Marked
		Leukemia Mononuclear	
Spleen		Fibrosis	Moderate
		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-11 ]			
Thymus		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 357

TRT#: 4

SEX: Female

DAY ON TEST: 724

DOSE: 0.01 PPM

DISP: Moribund

HISTO: 13604

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Nose
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Spleen	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Brain		Compression	
Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 2-11 ]			
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 4-5 ]			
Liver		Vacuolization Cytoplasmic	Mild
[ Vacuolization Cytoplasmic TGLS = 5-4 ]			
Lung	Bronchiole	Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Skin		Ulcer	Marked
Stomach, Forestomach		Acanthosis	Marked
		Hyperkeratosis	Marked
		Ulcer	Marked
[ Ulcer TGLS = 3-12 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 358

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 732

**DOSE:** 0.01 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13605

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Moderate

Liver

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 3-4 ]

Lung

Leukemia Mononuclear

Mesentery

Fat

Necrosis

Moderate

[ Necrosis TGLS = 1-11 ]

Nose

Nasolacrim Dct

Inflammation

Suppurative, Mild

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

Leukemia Mononuclear

[ Adenoma TGLS = 2-8 ]

[ Leukemia Mononuclear TGLS = 2-8 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 359

TRT#: 4

SEX: Female

DAY ON TEST: 459

DOSE: 0.01 PPM

DISP: Interval Sacrifice

HISTO: 13606

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Kidney		Mineralization	Mild
		Nephropathy	Chronic, Minimal
Larynx		Inflammation	Chronic, Minimal
		Metaplasia	Squamous, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
Nose		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 360

TRT#: 4

SEX: Female

DAY ON TEST: 732

DOSE: 0.01 PPM

DISP: Terminal Sacrifice

HISTO: 13607

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Lung

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Marked

Mesentery

Fat

Necrosis

Moderate

[ Necrosis TGLS = 1-11 ]

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 501

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13428

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Lung

Alveolus

Hemorrhage

Minimal

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8. ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 502

TRT#: 6

SEX: Female

DAY ON TEST: 652

DOSE: 0.05 PPM

DISP: Dead

HISTO: 13429

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Esophagus	Heart
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Islets, Pancreatic	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder	Vagina		

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Small, Jejunum
------------------------	--------------------------

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Brain		Hemorrhage	Mild
Clitoral Gland		Hyperplasia	Moderate
Kidney		Leukemia Mononuclear	
Larynx		Inflammation	Chronic, Minimal
Liver		Angiectasis	Moderate
		Leukemia Mononuclear	
[ Angiectasis TGLS = 8-11 ]			
[ Leukemia Mononuclear TGLS = 6-4+11 ]			
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
[ Leukemia Mononuclear TGLS = 2-3 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 7-15 ]			
Nose		Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Ovary		Cyst	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 502

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 652

**DOSE:** 0.05 PPM

**DISP:** Dead

**HISTO:** 13429

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Cyst TGLS = 9-7 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-12 ]			
Stomach, Forestomach		Acanthosis	Mild
		Hyperkeratosis	Moderate
Thymus		Leukemia Mononuclear	
Uterus		Polyp Stromal	
[ Polyp Stromal TGLS = 1-13 ]			

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 503

TRT#: 6

SEX: Female

DAY ON TEST: 367

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13430

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Mesenteric	Mammary Gland	Ovary	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

MISSING

Lymph Node, Mediastinal	Thymus
-------------------------	--------

OBSERVATIONS

Kidney		Mineralization	Moderate
		Nephropathy	Chronic, Minimal
Liver		Hepatodiaphragmatic Nodule	
Note: HDN NOT OBVIOUS. [ Hepatodiaphragmatic Nodule TGLS = 4-4. ]			
Lung	Alveolus	Hemorrhage	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
Lymph Node, Bronchial		Hemorrhage	Mild
Lymph Node, Mandibular		Inflammation	Chronic, Moderate
[ Inflammation TGLS = 1-7. ]			
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 504

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13431

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Mild

Lung

Alveolus

Hemorrhage

Minimal

Artery

Mineralization

Minimal

Bronchiole

Pigmentation

Minimal

Peribronchiolr

Pigmentation

Minimal

Nose

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 505

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13432

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Mild

Liver

Hepatocyte

Hyperplasia

Marked

Leukemia Mononuclear

[ Hyperplasia TGLS = 2-14 ]

Lung

Leukemia Mononuclear

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11+12+13 ]

Nose

Nasolacrim Dct

Inflammation

Suppurative, Mild

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 506

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13433

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Stomach, Forestomach

Trachea

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Mild

Lung

Alveolus

Hemorrhage

Mild

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 2-12 ]

Nose

Pigmentation

Minimal

Stomach, Glandular

Muscularis

Hypoplasia

Marked

[ Hypoplasia TGLS = 3-11. ]

Uterus

Polyp Stromal

[ Polyp Stromal TGLS = 1-8. ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 507

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13434

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

Uterus

**OBSERVATIONS**

Clitoral Gland

Hyperplasia

Moderate

[ Hyperplasia TGLS = 2-7 ]

Kidney

Mineralization

Mild

Larynx

Nephropathy

Chronic, Moderate

Lung

Bronchiole

Metaplasia

Squamous, Minimal

Peribronchiolr

Pigmentation

Minimal

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 508

TRT#: 6

SEX: Female

DAY ON TEST: 611

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13435

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Moderate
Brain		Compression	
		Hydrocephalus	Marked
	[ Hydrocephalus TGLS = 4-1 ]		
Eye		Cataract	Mild
	[ Cataract TGLS = 2-11 ]		
Kidney		Mineralization	Minimal
		Nephropathy	Chronic, Mild
Lung	Bronchiole	Pigmentation	Minimal
Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLS = 3-12 ]		
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 1-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 509

TRT#: 6

SEX: Female

DAY ON TEST: 550

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13436

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Bone Marrow		Hyperplasia	Reticulum Cell, Marked
Kidney		Nephropathy	Chronic, Minimal
Larynx		Metaplasia	Squamous, Minimal
Lung	Bronchiole	Pigmentation	Minimal
Nose		Foreign Body	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Skin		Neurofibrosarcoma	
	[ Neurofibrosarcoma TGLS = 2-11+12+13 ]		
Spleen		Hyperplasia	Reticulum Cell, Marked
	[ Hyperplasia TGLS = 3-4 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 510

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13437

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Clitoral Gland

Carcinoma

[ Carcinoma TGLS = 2-11+12 ]

Kidney

Nephropathy

Chronic, Moderate

Lung

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Minimal

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 511

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 569

HISTO: 13438

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	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	Larynx
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Bone	Mandible	Squamous Cell Carcinoma	Metastatic (Pharynx)
[ Squamous Cell Carcinoma TGLS = 1-13 ]			
Kidney		Mineralization	Moderate
		Nephropathy	Chronic, Mild
Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 6-4 ]			
Lung	Bronchiole	Pigmentation	Minimal
Lymph Node, Mandibular		Inflammation	Chronic, Mild
Lymph Node, Mediastinal		Hemorrhage	Minimal
		Pigmentation	Mild
[ Hemorrhage TGLS = 8-2 ]			
[ Pigmentation TGLS = 8-2 ]			
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 7-15 ]			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Pharynx		Squamous Cell Carcinoma	
Note: CA ALSO ON SL 11 ADJACENT TO LAC GLAND.			
[ Squamous Cell Carcinoma TGLS = 1,2-12+13 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 511

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 569

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13438

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Stomach, Forestomach

Hyperkeratosis

Mild

Tongue

Squamous Cell Carcinoma

Metastatic (Pharynx)

[ Squamous Cell Carcinoma TGLS = 3-14 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 512

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13439

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

Uterus

OBSERVATIONS

Kidney

Nephropathy

Chronic, Moderate

[ Nephropathy TGLS = 4-5 ]

Larynx

Metaplasia

Squamous, Minimal

Liver

Hepatocellular Carcinoma

Leukemia Mononuclear

[ Hepatocellular Carcinoma TGLS = 7-13 ]

[ Leukemia Mononuclear TGLS = 1-4+13 ]

Lung

Leukemia Mononuclear

Bronchiole

Pigmentation

Minimal

Mammary Gland

Adenocarcinoma

[ Adenocarcinoma TGLS = 5-14 ]

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 6-8 ]

Spleen

Fibrosis

Moderate

Leukemia Mononuclear

Necrosis

Marked

[ Fibrosis TGLS = 3-11 ]

[ Leukemia Mononuclear TGLS = 2-12 ]

[ Necrosis TGLS = 3-11 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 513

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 709

HISTO: 13440

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Brain		Hemorrhage	Minimal
Clitoral Gland		Hyperplasia	Moderate
		Inflammation	Suppurative, Marked
[ Hyperplasia TGLS = 5-7 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
		Leukemia Mononuclear	
Note: EARLY MCL IN LIVER AND SPLEEN.			
Lung	Bronchiole	Pigmentation	Mild
Mammary Gland		Adenocarcinoma	
		Fibroadenoma	Multiple
[ Adenocarcinoma TGLS = 1-11 ]			
[ Fibroadenoma TGLS = 2,4-12+13+14+15 ]			
Nose		Hemorrhage	Minimal
	Respirat Epith	Hyperplasia	Minimal
Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Moderate
[ Cyst TGLS = 3-8 ]			
[ Hyperplasia TGLS = 3-8 ]			
Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 514

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 13441

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Larynx

Trachea

Uterus

OBSERVATIONS

Kidney

Nephropathy

Chronic, Mild

Liver

Granuloma

Multifocal, Moderate

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 2-4 ]

Lung

Alveolus

Hemorrhage

Mild

Leukemia Mononuclear

Bronchiole

Pigmentation

Minimal

[ Hemorrhage TGLS = 4-3+11 ]

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 3-13 ]

Nose

Pigmentation

Mild

Ovary

Cyst

[ Cyst TGLS = 5-7 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-12 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 515

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13442

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

Uterus

**OBSERVATIONS**

Clitoral Gland

[ Cyst TGLS = 2-7 ]

Cyst

Kidney

Nephropathy

Chronic, Moderate

Larynx

Metaplasia

Squamous, Minimal

Lung

Alveolus

Hemorrhage

Minimal

Leukemia Mononuclear

Bronchiole

Pigmentation

Minimal

Peribronchiolr

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11 ]

Nose

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 516

TRT#: 6

SEX: Female

DAY ON TEST: 642

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13443

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Clitoral Gland	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Moderate
		Leukemia Mononuclear	
Brain		Hemorrhage	Moderate
Kidney		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Chronic, Minimal
Liver		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 4-4 ]		
Lung	Alveolus	Hemorrhage	Mild
	Alveolar Epith	Hyperplasia	Moderate
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
	[ Hemorrhage TGLS = 1-3+13 ]		
	[ Hyperplasia TGLS = 6-12 ]		
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLS = 5-11 ]		
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:14  
**First Dose M/F:** NA / NA  
**Lab:** BNW

---

<b>ANIMAL ID:</b> 516	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 642
	<b>DOSE:</b> 0.05 PPM	<b>DISP:</b> Moribund	<b>HISTO:</b> 13443

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 2-8 ] Spleen	Leukemia Mononuclear Necrosis	Moderate
[ Leukemia Mononuclear TGLS = 3-14+15 ] [ Necrosis TGLS = 7-14 ] Stomach, Forestomach	Acanthosis Ulcer	Minimal Marked

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PRIMARY CAUSE OF DEATH -

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 517

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 0.05 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13444

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 1-11 ]

Lung

Alveolus

Hemorrhage

Mild

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Mild

Bronchiole

Pigmentation

Mild

Nose

Pigmentation

Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:14  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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<b>ANIMAL ID:</b> 518	<b>TRT#:</b> 6	<b>SEX:</b> Female	<b>DAY ON TEST:</b> 731
	<b>DOSE:</b> 0.05 PPM	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 13445

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

Trachea	Uterus
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**INSUFFICIENT TISSUE**

Larynx

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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
	[ Hemorrhage TGLS = 2-3+11 ]		
Nose		Pigmentation	Mild
Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 1-4 ]		

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PRIMARY CAUSE OF DEATH

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-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 519

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13446

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Ovary

Spleen

Trachea

Uterus

**OBSERVATIONS**

Clitoral Gland

Hyperplasia

Moderate

[ Hyperplasia TGLS = 3-7 ]

Eye

Cataract

Mild

[ Cataract TGLS = 1-11 ]

Kidney

Nephropathy

Chronic, Mild

Larynx

Inflammation

Chronic, Mild

Metaplasia

Squamous, Minimal

Lung

Alveolus

Hemorrhage

Mild

Bronchiole

Pigmentation

Minimal

Nose

Foreign Body

Mild

Hemorrhage

Mild

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 520

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 0.05 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13447

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Clitoral Gland

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Mild

Liver

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-4 ]

Lung

Leukemia Mononuclear

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8 ]

Spleen

Fibrosis

Moderate

[ Fibrosis TGLS = 3-11 ]

[ Leukemia Mononuclear TGLS = 2-4+11 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 521

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13448

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Eye

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Larynx

Foreign Body

Mild

Lung

Alveolus

Inflammation

Suppurative, Mild

[ Hemorrhage TGLS = 2-3. ]

Hemorrhage

Minimal

Nose

Respirat Epith

Foreign Body

Moderate

Hyperplasia

Mild

Inflammation

Suppurative, Moderate

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 522

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Dead

DAY ON TEST: 590

HISTO: 13449

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Jejunum	Islets, Pancreatic
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Glandular
Thymus	Trachea	Urinary Bladder	Uterus

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Small, Ileum
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OBSERVATIONS

Brain		Compression	
		Hemorrhage	Marked
		Hydrocephalus	Marked
		Necrosis	Marked
[ Hydrocephalus TGLS = 3-1 ]			
Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Liver		Angiectasis	Moderate
[ Angiectasis TGLS = 5-11 ]			
Lung		Congestion	Marked
[ Congestion TGLS = 1-3 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Stomach, Forestomach		Acanthosis	Mild
Thyroid Gland	C Cell	Carcinoma	
Note: ATYPICAL C-CELLS IN TUMOR-LOOK LIKE HURTHLE CELLS.			
[ Carcinoma TGLS = 4-2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 523

TRT#: 6

SEX: Female

DAY ON TEST: 718

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13450

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	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, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Glandular	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Medulla	Bilateral	Hyperplasia Pheochromocytoma Benign	Moderate
Brain		Compression	
Kidney		Nephropathy	Chronic, Marked
[ Nephropathy TGLS = 3-5 ]			
Larynx		Metaplasia	Squamous, Mild
Liver		Angiectasis Basophilic Focus	Marked
[ Angiectasis TGLS = 5-12 ]			
Lung	Bronchiole	Pigmentation Hemorrhage	Minimal Mild
Lymph Node, Mesenteric			
[ Hemorrhage TGLS = 7-6 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Stomach, Forestomach		Acanthosis Hyperkeratosis Ulcer	Mild Mild Marked
[ Ulcer TGLS = 4-13 ]			
Thyroid Gland	C Cell	Hyperplasia	Minimal
Uterus	Endometrium	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 524

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.05 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13451

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Trachea

Uterus

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**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Larynx

Foreign Body

Mild

Lung

Alveolus

Hemorrhage

Minimal

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 525

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13452

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Stomach, Forestomach

Stomach, Glandular

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Lung

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

Cyst

[ Adenoma TGLS = 1-8 ]

[ Cyst TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 526

TRT#: 6

SEX: Female

DAY ON TEST: 695

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13453

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Parathyroid Gland	Salivary Glands	Skin
Stomach, Glandular	Trachea	Urinary Bladder	

MISSING

Thymus

OBSERVATIONS

Kidney		Leukemia Mononuclear Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear Vacuolization Cytoplasmic	Marked
		[ Leukemia Mononuclear TGLS = 3-4 ] [ Vacuolization Cytoplasmic TGLS = 3-4 ]	
Lung		Leukemia Mononuclear	
Nose		Pigmentation	Mild
Ovary		Cyst	
		[ Cyst TGLS = 2-7 ]	
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Fibrosis Leukemia Mononuclear	Marked
		[ Fibrosis TGLS = 4-12 ] [ Leukemia Mononuclear TGLS = 1-11+12 ]	
Stomach, Forestomach		Acanthosis Hyperkeratosis Ulcer	Moderate Moderate Marked
		[ Acanthosis TGLS = 5-13 ]	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 526

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 695

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13453

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hyperkeratosis TGLS = 5-13 ]

Thyroid Gland

C Cell

Carcinoma

Uterus

Endometrium

Hyperplasia

Mild

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 527

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13454

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Larynx

Metaplasia

Squamous, Minimal

Lung

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Mild

Skin

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-11 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 528

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 0.05 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13455

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Lung	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Ovary		Cyst	
[ Cyst TGLS = 2-7 ]			
Uterus	Endometrium	Hyperplasia	Mild
[ Hyperplasia TGLS = 1-11 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 529

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13456

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Mild

Lung

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11+12 ]

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 530

TRT#: 6

SEX: Female

DAY ON TEST: 585

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13457

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Salivary Glands
Thymus			

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
[ Leukemia Mononuclear TGLS = 6-4 ]			
[ Vacuolization Cytoplasmic TGLS = 6-4 ]			
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
[ Leukemia Mononuclear TGLS = 1-3 ]			
Mesentery		Hemorrhage	Marked
[ Hemorrhage TGLS = 5-11 ]			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Spleen		Ectopic Tissue	
		Leukemia Mononuclear	
[ Ectopic Tissue TGLS = 4-12 ]			
[ Leukemia Mononuclear TGLS = 3-13 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 530

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 585

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13457

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 531

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13458

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

Uterus

**OBSERVATIONS**

Clitoral Gland

Carcinoma

[ Carcinoma TGLS = 1,3-12+13 ]

Kidney

Nephropathy

Chronic, Mild

Larynx

Metaplasia

Squamous, Minimal

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 2-11 ]

Lung

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 532

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13459

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Lung

Alveolus

Hemorrhage

Minimal

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Minimal

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8. ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 533

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13460

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Moderate

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 3-11 ]

Lung

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Mild

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8 ]

Uterus

Polyp Stromal

[ Polyp Stromal TGLS = 2-12 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 534

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 695

HISTO: 13461

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Clitoral Gland	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Mild
Brain		Leukemia Mononuclear	
Eye	Lids	Hemorrhage	Minimal
[ Fibroma TGLS = 1-11 ]		Fibroma	
Kidney		Leukemia Mononuclear	
		Mineralization	Mild
		Nephropathy	Chronic, Mild
Liver	Hepatocyte	Hyperplasia	Marked
[ Hyperplasia TGLS = 4-12 ]		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4+12 ]			
Lung	Bronchiole	Leukemia Mononuclear	
		Pigmentation	Mild
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose		Hemorrhage	Moderate
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 534

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 695

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13461

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Spleen

[ Leukemia Mononuclear TGLS = 3-13 ]

Leukemia Mononuclear

Thymus

Leukemia Mononuclear

Uterus

Infarct

Marked

Polyp Stromal

Note: POLYP IS INFARCTED, IN LUMEN IN SL 8, 14.

[ Infarct TGLS = 2-8+14 ]

[ Polyp Stromal TGLS = 2-8+14 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 535

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13462

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 3-11 ]

Lung

Bronchiole

Pigmentation

Mild

Nose

Pigmentation

Mild

Ovary

Cyst

[ Cyst TGLS = 2-7 ]

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 536

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 402

HISTO: 13463

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

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

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 1-4. ]			
Lung	Alveolus	Hemorrhage	Minimal
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 2-7. ]			
Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Suppurative, Moderate
	Respirat Epith	Metaplasia	Squamous, Mild
		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 537

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13464

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

Uterus

OBSERVATIONS

Clitoral Gland

Carcinoma

[ Carcinoma TGLS = 5-12 ]

Kidney

Nephropathy

Chronic, Moderate

[ Nephropathy TGLS = 2-5 ]

Larynx

Metaplasia

Squamous, Minimal

Liver

Clear Cell Focus

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-4 ]

Lung

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Moderate

Leukemia Mononuclear

Nose

Bronchiole

Pigmentation

Minimal

Nasolacrim Dct

Foreign Body

Mild

Inflammation

Suppurative, Mild

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 3-8 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-11 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

---

**ANIMAL ID:** 538

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 731

**DOSE:** 0.05 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13465

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Trachea

Uterus

---

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Larynx

Metaplasia

Squamous, Minimal

Lung

Bronchiole

Pigmentation

Minimal

Peribronchiolr

Pigmentation

Minimal

Nose

Pigmentation

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 539

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 597

HISTO: 13466

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mesenteric
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Stomach, Forestomach	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

MISSING

Clitoral Gland	Mammary Gland	Skin
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OBSERVATIONS

Adrenal Medulla		Pheochromocytoma Benign	
Heart		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 6-4+13 ]			
Kidney	Cortex, Renal Tubule	Cytoplasmic Alteration	Marked
		Nephropathy	Chronic, Mild
Note: BRIGHT RED GRANULES IN CORT TUBUL CYTOPLASM.			
[ Cytoplasmic Alteration TGLS = 3-5 ]			
Liver		Granuloma	Multifocal, Marked
Lung		Alveolar/Bronchiolar Carcinoma	
	Bronchiole	Pigmentation	Minimal
[ Alveolar/Bronchiolar Carcinoma TGLS = 1,4,5-3+11+12+14 ]			
Lymph Node, Mediastinal		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)
[ Alveolar/Bronchiolar Carcinoma TGLS = 1-14 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 2-17 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Mild
Spleen		Ectopic Tissue	
[ Ectopic Tissue TGLS = 7-15 ]			
Thymus		Alveolar/Bronchiolar Carcinoma	Metastatic (Lung)

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

---

**ANIMAL ID:** 539

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 597

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13466

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Alveolar/Bronchiolar Carcinoma TGLS = 1-14 ]

Tooth

Inflammation

Suppurative, Marked

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 540

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 37

**DOSE:** 0.05 PPM

**DISP:** Wrong Sex

**HISTO:** 13467

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**PRESENT BUT NOT EXAMINED**

Tooth

---

**PRIMARY CAUSE OF DEATH**

-

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Animal Note: MISSEXED;NECROPSY BUT NO HISTOLOGY.

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 541

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 731

HISTO: 13468

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Larynx Trachea

OBSERVATIONS

Kidney Leukemia Mononuclear Nephropathy Chronic, Mild

[ Leukemia Mononuclear TGLS = 6-5 ]

Liver Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 2-4 ]

Lung Alveolar Epith Hyperplasia Minimal  
Alveolus Infiltration Cellular Histiocyte, Multifocal, Moderate

Bronchiole Pigmentation Minimal

[ Leukemia Mononuclear TGLS = 3-11 ]

Nose Pigmentation Mild

Pituitary Gland Pars Distalis Adenoma

[ Adenoma TGLS = 5-8 ]

Spleen Fibrosis Moderate

[ Fibrosis TGLS = 4-13 ]  
Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 1-12+13 ]

Uterus Polyp Stromal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 542

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13469

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Marked

Larynx

Metaplasia

Squamous, Minimal

Lung

Granuloma

Moderate

Bronchiole

Pigmentation

Minimal

[ Granuloma TGLS = 2-11 ]

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

Cyst

[ Adenoma TGLS = 1-8 ]

[ Cyst TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 543

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 562

HISTO: 13470

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	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	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Medulla		Hyperplasia Pheochromocytoma Benign	Moderate
Kidney		Leukemia Mononuclear Nephropathy	Chronic, Mild
Larynx		Inflammation	Chronic, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung	Alveolus	Hemorrhage Leukemia Mononuclear	Moderate
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 3-3 ]			
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-6,2-2 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-6,2-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-6,2-2 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-6,2-2 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-6,2-2 ]			
Nose	Nasolacrim Dct	Inflammation Pigmentation	Suppurative, Mild Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

---

**ANIMAL ID:** 543

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 562

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13470

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Pituitary Gland

Cyst

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-11 ]

Thymus

Leukemia Mononuclear

Thyroid Gland

C Cell

Adenoma

Uterus

Inflammation

Suppurative, Mild

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 544

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13471

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Lymph Node, Mediastinal

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Larynx		Foreign Body	Mild
		Inflammation	Suppurative, Mild
Lung	Alveolus	Hemorrhage	Minimal
[ Hemorrhage TGLS = 3-3. ]			
Nose		Inflammation	Suppurative, Minimal
		Pigmentation	Minimal
Pituitary Gland		Cyst	
[ Cyst TGLS = 2-8. ]			
Trachea		Inflammation	Chronic, Minimal
Uterus		Dilatation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 545

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13472

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Trachea

Uterus

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Moderate

Larynx

Metaplasia

Squamous, Minimal

Lung

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11 ]

Nose

Hemorrhage

Mild

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 546

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13473

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Clitoral Gland

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Lung

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Minimal

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11+12 ]

Nose

Nasolacrim Dct

Inflammation

Suppurative, Mild

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 547

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13474

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Lung

Alveolus

Hemorrhage

Mild

Artery

Mineralization

Minimal

Bronchiole

Pigmentation

Minimal

Nose

Pigmentation

Minimal

Pituitary Gland

Cyst

[ Cyst TGLS = 1-8. ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 548

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13475

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Lung

Bronchiole

Pigmentation

Minimal

Nose

Hemorrhage

Mild

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 1-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 549

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13476

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Lung

Alveolus

Hemorrhage

Minimal

Bronchiole

Pigmentation

Minimal

Nose

Foreign Body

Minimal

Respirat Epith

Metaplasia

Squamous, Minimal

Pigmentation

Minimal

Uterus

Dilatation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 550

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13477

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Stomach, Forestomach

Stomach, Glandular

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Liver

Clear Cell Focus

[ Clear Cell Focus TGLS = 2-11 ]

Lung

Bronchiole

Pigmentation

Minimal

Nose

Hemorrhage

Mild

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 551

TRT#: 6

SEX: Female

DAY ON TEST: 549

DOSE: 0.05 PPM

DISP: Moribund

HISTO: 13478

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Bone	Bone Marrow	Brain	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Stomach, Forestomach	Stomach, Glandular
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Moderate
		Leukemia Mononuclear	
Clitoral Gland		Cyst	
		Hyperplasia	Moderate
	[ Cyst TGLS = 7-7 ]		
	[ Hyperplasia TGLS = 7-7 ]		
Heart		Thrombosis	
Kidney		Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
	[ Leukemia Mononuclear TGLS = 6-4 ]		
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
Lymph Node, Bronchial		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 8-6,2-2 ]		
Lymph Node, Mandibular		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 8-6,2-2 ]		
Lymph Node, Mediastinal		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 8-6,2-2 ]		
Lymph Node, Mesenteric		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLS = 8-6,2-2 ]		
Mammary Gland		Fibroadenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 551

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 549

**DOSE:** 0.05 PPM

**DISP:** Moribund

**HISTO:** 13478

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Fibroadenoma TGLS = 3-12 ]

Nose

Pigmentation

Minimal

Spleen

Fibrosis

Moderate

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4-11 ]

Thymus

Leukemia Mononuclear

Thyroid Gland

C Cell

Carcinoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 552

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13479

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Ovary

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Mild

Lung

Bronchiole

Pigmentation

Minimal

Mammary Gland

Adenocarcinoma

Fibroadenoma

[ Adenocarcinoma TGLS = 1-11 ]

[ Fibroadenoma TGLS = 2-12 ]

Mesentery

Hemorrhage

Marked

Inflammation

Granulomatous, Marked

Fat

Necrosis

Moderate

[ Inflammation TGLS = 3,4-13 ]

Nose

Pigmentation

Mild

Ovary

Note: GROSS LESION IN OVARY IS NECROTIC FAT IN BROAD LIGAMENT.

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 553

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13480

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Trachea

Uterus

OBSERVATIONS

Clitoral Gland

Cyst

Hyperplasia

Moderate

[ Cyst TGLS = 3-7 ]

Kidney

Nephropathy

Chronic, Moderate

Larynx

Metaplasia

Squamous, Minimal

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 2-12 ]

Lung

Pleura

Fibrosis

Moderate

Alveolus

Hemorrhage

Mild

Alveolus

Infiltration Cellular

Histiocyte, Multifocal, Moderate

Bronchiole

Pigmentation

Minimal

Mesentery

Inflammation

Granulomatous, Moderate

Fat

Necrosis

Moderate

[ Inflammation TGLS = 1-11 ]

[ Necrosis TGLS = 1-11 ]

Nose

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 554

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13481

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Adrenal Medulla

[ Pheochromocytoma Malignant TGLS = 2-5 ]

Pheochromocytoma Malignant

Kidney

[ Nephropathy TGLS = 1-5 ]

Nephropathy

Chronic, Marked

Lung

Pleura

Fibrosis

Minimal

Pheochromocytoma Malignant

Metastatic (Uncertain Primary Site)

Bronchiole

Pigmentation

Minimal

[ Pheochromocytoma Malignant TGLS = 3-3+11 ]

Nose

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 555

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13482

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Moderate

Liver

Hepatodiaphragmatic Nodule

[ Hepatodiaphragmatic Nodule TGLS = 3-12 ]

Lung

Alveolus

Hemorrhage

Minimal

Bronchiole

Pigmentation

Minimal

Mammary Gland

Adenocarcinoma

[ Adenocarcinoma TGLS = 1-11 ]

Nose

Pigmentation

Mild

Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLS = 2-8 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 556

TRT#: 6

SEX: Female

DAY ON TEST: 459

DOSE: 0.05 PPM

DISP: Interval Sacrifice

HISTO: 13483

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Nephropathy

Chronic, Minimal

Lung

Alveolus

Hemorrhage

Minimal

Nose

Respirat Epith

Hyperplasia

Minimal

Pigmentation

Minimal

Pituitary Gland

Cyst

[ Cyst TGLS = 2-8. ]

Stomach, Glandular

Muscularis

Hypoplasia

Moderate

[ Hypoplasia TGLS = 1-11. ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 557

TRT#: 6

SEX: Female

DAY ON TEST: 366

DOSE: 0.05 PPM

DISP: Dead

HISTO: 13484

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Clitoral Gland	Esophagus
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Brain		Hemorrhage	Moderate
[ Hemorrhage TGLS = 4-1. ]			
Heart		Leukemia Mononuclear	
Kidney		Leukemia Mononuclear	
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4. ]			
Lung		Leukemia Mononuclear	
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose	Nasolacrim Dct	Hemorrhage	Mild
		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4. ]			
Stomach, Forestomach		Acanthosis	Moderate
		Hyperkeratosis	Moderate
[ Acanthosis TGLS = 7-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 558

TRT#: 6

DOSE: 0.05 PPM

SEX: Female

DISP: Dead

DAY ON TEST: 618

HISTO: 13485

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Small, Ileum	Intestine Small, Jejunum
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OBSERVATIONS

Brain		Compression	
		Hemorrhage	Minimal
		Hydrocephalus	Moderate
[ Hydrocephalus TGLS = 3-1 ]			
Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Moderate
Liver		Angiectasis	Mild
[ Angiectasis TGLS = 4-11 ]			
Lung	Alveolus	Hemorrhage	Moderate
[ Hemorrhage TGLS = 1-3 ]			
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
		Hemorrhage	Marked
[ Adenoma TGLS = 2-8 ]			
[ Hemorrhage TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 559

TRT#: 6

SEX: Female

DAY ON TEST: 561

DOSE: 0.05 PPM

DISP: Dead

HISTO: 13486

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Clitoral Gland	Esophagus
Heart	Islets, Pancreatic	Larynx	Lung
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

AUTO PRECLUDES DIAG.

Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum		

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Brain		Hemorrhage	Mild
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Minimal
Liver		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Marked
[ Leukemia Mononuclear TGLS = 4-4 ]			
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 1-11 ]			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Pituitary Gland		Cyst	
		Leukemia Mononuclear	
[ Cyst TGLS = 2-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Stomach, Forestomach		Acanthosis	Mild
		Hyperkeratosis	Mild
		Inflammation	Suppurative, Mild

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 559

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 561

**DOSE:** 0.05 PPM

**DISP:** Dead

**HISTO:** 13486

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Stomach, Glandular

Inflammation

Suppurative, Mild

---

PRIMARY CAUSE OF DEATH

-

---

Animal Note: FOCI IN GL STOM INTERPRETED AS AUTOLYTIC.

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 560

TRT#: 6

SEX: Female

DAY ON TEST: 731

DOSE: 0.05 PPM

DISP: Terminal Sacrifice

HISTO: 13487

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Larynx

Trachea

Uterus

**OBSERVATIONS**

Kidney

Mineralization

Mild

Nephropathy

Chronic, Mild

Lung

Bronchiole

Pigmentation

Minimal

Mammary Gland

Fibroadenoma

[ Fibroadenoma TGLS = 1-11 ]

Nose

Pigmentation

Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 701

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13308

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Liver	Lymph Node, Mandibular
Lymph Node, Mesenteric	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Lymph Node, Bronchial	Lymph Node, Mediastinal
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**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Minimal
Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Suppurative, Mild
		Metaplasia	Squamous, Minimal
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Uterus	Cervix, Muscularis	Hyperplasia	Moderate

[ Hyperplasia TGLS = 1-11 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 702

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13309

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Adrenal Medulla	Bilateral	Hyperplasia	Mild
Brain		Compression	
		Hydrocephalus	Moderate
[ Hydrocephalus TGLS = 2-1 ]			
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Marked
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 1-11 ]			
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Note: ADENOMA ALSO ON SL 1--BRAIN.			
[ Adenoma TGLS = 3-1+8 ]			
Stomach, Forestomach		Ulcer	Mild
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 703

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13310

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mesenteric	Ovary	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Lymph Node, Mediastinal	Parathyroid Gland
-------------------------	-------------------

OBSERVATIONS

Adrenal Cortex		Necrosis	Moderate
Kidney		Nephropathy	Chronic, Minimal
Larynx		Metaplasia	Squamous, Minimal
Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 4-15 ]			
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 1-11+12+13+14 ]			
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2,5-8 ]			
Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 704

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13311

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

OBSERVATIONS

Clitoral Gland [ Inflammation TGLS = 1-12 ]		Inflammation	Suppurative, Moderate
Kidney		Nephropathy	Chronic, Mild
Liver [ Clear Cell Focus TGLS = 2-11 ]		Clear Cell Focus	
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Mammary Gland [ Fibroadenoma TGLS = 1-12 ]		Fibroadenoma	
Nose		Pigmentation	Mild
Pituitary Gland [ Adenoma TGLS = 4-8 ]	Pars Distalis	Adenoma	
Skin [ Ulcer TGLS = 1-12 ]		Ulcer	Marked
Thyroid Gland	C Cell	Adenoma	
Uterus	Endometrium	Hyperplasia	Marked
		Polyp Stromal	

Note: NECROTIC MASS INTRPRTED AS TORSION/INFARCT OF POLYP.

[ Polyp Stromal TGLS = 3-13 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 705

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13312

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Ovary	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Medulla		Hyperplasia	Mild
Brain		Compression	
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 2-5 ]		
Larynx		Metaplasia	Squamous, Minimal
Liver		Angiectasis	Marked
		Leukemia Mononuclear	
	[ Angiectasis TGLS = 3,5-11+12 ]		
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 4-8 ]		
Spleen		Leukemia Mononuclear	
Thyroid Gland	C Cell	Carcinoma	
	[ Carcinoma TGLS = 1-2 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 705

**TRT#:** 8

**DOSE:** 0.2 PPM

**SEX:** Female

**DISP:** Terminal Sacrifice

**DAY ON TEST:** 730

**HISTO:** 13312

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 706

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13313

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Trachea	Urinary Bladder	Uterus

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Liver		Hepatodiaphragmatic Nodule	
	[ Hepatodiaphragmatic Nodule TGLS = 1-12 ]		
Lung	Alveolus	Hemorrhage	Minimal
	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Bronchiole	Pigmentation	Mild
	[ Hemorrhage TGLS = 2-3+11 ]		
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Thyroid Gland		Ultimobranchial Cyst	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 707

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13314

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mesenteric	Mammary Gland	Ovary
Pancreas	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

MISSING

Lymph Node, Mediastinal	Parathyroid Gland
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OBSERVATIONS

Adrenal Cortex		Cytomegaly	Mild
Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Foreign Body	Mild
		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Thyroid Gland	C Cell	Carcinoma	
	C Cell	Hyperplasia	Moderate

Note: UNUSUAL C-CELL TUMOR;PROFOUND DESMOPLASIA.

[ Carcinoma TGLS = 1-2 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 708

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13315

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

**OBSERVATIONS**

Adrenal Medulla	Bilateral	Hyperplasia	Moderate
Clitoral Gland		Cyst	
[ Cyst TGLS = 3-13 ]			
Islets, Pancreatic		Adenoma	
Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
Lung	Bronchiole	Pigmentation	Mild
Nose		Pigmentation	Mild
Pituitary Gland	Pars Intermed	Adenoma	
Skin		Basal Cell Carcinoma	
[ Basal Cell Carcinoma TGLS = 1-11 ]			
Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 709

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13316

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Uterus			

**MISSING**

Ovary	Urinary Bladder
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**OBSERVATIONS**

Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Marked
Larynx		Metaplasia	Squamous, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 3-8 ]		
Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 710

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13317

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Esophagus	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Liver	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

OBSERVATIONS

Brain		Compression	
		Hydrocephalus	Moderate
Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 1-7+14 ]			
Heart		Cardiomyopathy	Minimal
Kidney		Nephropathy	Chronic, Mild
[ Nephropathy TGLS = 2-5 ]			
Lung	Alveolus	Hemorrhage	Mild
	Alveolar Epith	Hyperplasia	Mild
	Bronchiole	Pigmentation	Mild
[ Hyperplasia TGLS = 6-11 ]			
Mammary Gland		Fibroadenoma	
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Spleen			
Note: SPLEEN BORDERLINE FOR MCL.			
Uterus		Adenocarcinoma	
		Polyp Stromal	
[ Adenocarcinoma TGLS = 4-12 ]			
[ Polyp Stromal TGLS = 5-13 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 710

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13317

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 711

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13318

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**OBSERVATIONS**

Adrenal Cortex		Hyperplasia	Marked
Kidney		Nephropathy	Chronic, Moderate
Liver		Hepatocellular Adenoma	Multiple
		Leukemia Mononuclear	
[ Hepatocellular Adenoma TGLS = 1,2-4+11 ]			
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Spleen		Leukemia Mononuclear	
Uterus	Endometrium	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 712

TRT#: 8

SEX: Female

DAY ON TEST: 625

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13319

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Brain		Compression	
		Hydrocephalus	Moderate
Eye		Cataract	Mild
[ Cataract TGLS = 1-12 ]			
Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Liver		Clear Cell Focus	
[ Clear Cell Focus TGLS = 3-4 ]			
Lung	Bronchiole	Pigmentation	Mild
Nose		Foreign Body	Mild
		Pigmentation	Moderate
Note: GOOD EX OF PIGMENT IN XS2 MDIAN SEPTUM.			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Stomach, Forestomach		Acanthosis	Marked
		Erosion	Marked
		Hyperkeratosis	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 713

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13320

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Trachea	Urinary Bladder
Uterus			

MISSING

Parathyroid Gland

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Mild
Kidney		Nephropathy	Chronic, Moderate
Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 2-11 ]			
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Suppurative, Mild
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	
Thyroid Gland	C Cell	Carcinoma	
[ Carcinoma TGLS = 3-2 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 714

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13321

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder		

OBSERVATIONS

Heart		Cardiomyopathy	Minimal
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Suppurative, Minimal
		Metaplasia	Squamous, Minimal
Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Bronchiole	Pigmentation	Mild
Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLS = 1,2-11+12+13+14 ]		
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
Thyroid Gland	C Cell	Hyperplasia	Minimal
Tooth		Inflammation	Suppurative, Marked
Uterus		Polyp Stromal	
	[ Polyp Stromal TGLS = 3-15 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 715

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13322

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Liver	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Mild
Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 1-11 ]			
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Minimal
Larynx		Metaplasia	Squamous, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 716

TRT#: 8

SEX: Female

DAY ON TEST: 668

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13323

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Kidney		Mineralization	Mild
		Nephropathy	Chronic, Minimal
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Mild
Nose		Pigmentation	Mild
Skin	Subcut Tiss	Sarcoma	
[ Sarcoma TGLS = 1-11 ]			
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 717

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13324

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Adrenal Medulla		Hyperplasia	Mild
Clitoral Gland		Inflammation	Suppurative, Marked
[ Inflammation TGLS = 2-7 ]			
Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Chronic, Mild
		Metaplasia	Squamous, Mild
Liver		Leukemia Mononuclear	
Lung	Alveolar Epith	Hyperplasia	Minimal
	Bronchiole	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 718

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13325

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Adrenal Cortex		Hemorrhage	Mild
Kidney		Nephropathy	Chronic, Mild
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 4-4. ]			
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Minimal
Ovary		Cyst	
[ Cyst TGLS = 2-7. ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8. ]			
Spleen		Ectopic Tissue	
[ Ectopic Tissue TGLS = 3-4. ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 719

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 710

HISTO: 13326

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Pancreas	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

MISSING

Lymph Node, Mandibular

OBSERVATIONS

Adrenal Medulla	Bilateral	Hyperplasia	Mild
Kidney		Nephropathy	Chronic, Marked
Larynx		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
Lung	Alveolus	Hemorrhage	Moderate
	Bronchiole	Pigmentation	Mild
[ Hemorrhage TGLS = 1-3 ]			
Lymph Node	Renal	Pigmentation	Mild
[ Pigmentation TGLS = 3-13 ]			
Nose		Hemorrhage	Moderate
		Pigmentation	Mild
Ovary		Thecoma Malignant	
[ Thecoma Malignant TGLS = 2-11 ]			
Parathyroid Gland		Hyperplasia	Mild
[ Hyperplasia TGLS = 5-2 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 4-8 ]			
Spleen		Leukemia Mononuclear	
Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Hexachlorocyclopentadiene  
**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014  
**Time Report Requested:** 07:14:14  
**First Dose M/F:** NA / NA  
**Lab:** BNW

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**ANIMAL ID:** 719

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 710

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13326

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 720

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13327

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Glandular	Thymus	Trachea	Urinary Bladder
Uterus			

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3. ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
		Pigmentation	Mild
Stomach, Forestomach		Acanthosis	Moderate
Thyroid Gland		Ultimobranchial Cyst	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 721

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 724

HISTO: 13328

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Urinary Bladder	Uterus		

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
Kidney		Leukemia Mononuclear	
		Mineralization	Mild
		Nephropathy	Chronic, Mild
[ Leukemia Mononuclear TGLS = 9-5 ]			
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 8-4 ]			
Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Moderate
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Lymph Node	Axillary	Leukemia Mononuclear	
	Iliac	Leukemia Mononuclear	
	Renal	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 11-14,1-12,10-13,2-7,7-6,3-2 ]			
[ Leukemia Mononuclear TGLS = 11-14,1-12,10-13,2-7,7-6,3-2 ]			
[ Leukemia Mononuclear TGLS = 11-14,1-12,10-13,2-7,7-6,3-2 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 11-14,1-12,10-13,2-7,7-6,3-2 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 11-14,1-12,10-13,2-7,7-6,3-2 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 721

**TRT#:** 8

**DOSE:** 0.2 PPM

**SEX:** Female

**DISP:** Moribund

**DAY ON TEST:** 724

**HISTO:** 13328

**ORGAN AND ACCOUNTABLE SITE STATUS**

Lymph Node, Mediastinal

[ Leukemia Mononuclear TGLS = 11-14,1-12,10-13,2-7,7-6,3-2 ]

Leukemia Mononuclear

Lymph Node, Mesenteric

[ Leukemia Mononuclear TGLS = 11-14,1-12,10-13,2-7,7-6,3-2 ]

Leukemia Mononuclear

Nose

Pigmentation

Mild

Pituitary Gland

Cyst

Leukemia Mononuclear

[ Cyst TGLS = 6-8 ]

Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLS = 4,5-4+11 ]

Thymus

Leukemia Mononuclear

Trachea

Pigmentation

Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 722

TRT#: 8

SEX: Female

DAY ON TEST: 635

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13329

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach, Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

OBSERVATIONS

Brain		Compression	
		Hydrocephalus	Moderate
[ Hydrocephalus TGLS = 3-1 ]			
Kidney		Nephropathy	Chronic, Moderate
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 1-11 ]			
Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Stomach, Forestomach		Acanthosis	Mild
		Erosion	Mild
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 723

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 658

**DOSE:** 0.2 PPM

**DISP:** Dead

**HISTO:** 13330

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Jejunum	Islets, Pancreatic
Larynx	Liver	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Nose	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Glandular	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**MISSING**

Thymus

**AUTO PRECLUDES DIAG.**

Intestine Small, Ileum

**OBSERVATIONS**

Adrenal Cortex		Cytomegaly	Mild
Brain		Compression	
		Hydrocephalus	Mild
Kidney		Nephropathy	Chronic, Moderate
Lung	Bronchiole	Pigmentation	Mild
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 2-12 ]			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Stomach, Forestomach		Acanthosis	Moderate
		Erosion	Moderate
[ Erosion TGLS = 3-8 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 724

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 726

HISTO: 13331

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Parathyroid Gland	Salivary Glands	Skin
Spleen	Thymus	Trachea	Urinary Bladder

OBSERVATIONS

Brain		Compression	
		Hemorrhage	Moderate
		Hydrocephalus	Mild
[ Hemorrhage TGLS = 3-1 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Granuloma	Multifocal, Mild
Lung	Alveolus	Inflammation	Suppurative, Minimal
	Bronchiole	Pigmentation	Mild
Mesentery	Fat	Necrosis	Marked
[ Necrosis TGLS = 2-12 ]			
Nose		Foreign Body	Minimal
		Inflammation	Suppurative, Minimal
		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Stomach, Forestomach		Acanthosis	Mild
		Inflammation	Suppurative, Mild
Stomach, Glandular		Erosion	Mild
		Inflammation	Suppurative, Mild
[ Erosion TGLS = 4-8+11 ]			
Thyroid Gland	C Cell	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 724

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 726

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13331

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Uterus

Polyp Stromal

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 725

TRT#: 8

SEX: Female

DAY ON TEST: 617

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13332

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Adrenal Medulla		Pheochromocytoma Benign	
Brain		Compression	
		Hemorrhage	Mild
		Hydrocephalus	Moderate
	[ Hemorrhage TGLS = 3-1 ]		
	[ Hydrocephalus TGLS = 4-1 ]		
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Moderate
Liver		Vacuolization Cytoplasmic	Marked
	[ Vacuolization Cytoplasmic TGLS = 2-4 ]		
Lung	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 1-8 ]		
Stomach, Forestomach		Acanthosis	Mild
		Hyperkeratosis	Mild
		Inflammation	Suppurative, Mild
Stomach, Glandular		Inflammation	Suppurative, Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 726

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13333

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Bronchiole	Pigmentation	Mild
[ Hyperplasia TGLS = 4-15 ]			
Mammary Gland		Fibroadenoma	Multiple
		Sarcoma	
Note: SARCOMA APPEARS TO ARISE IN AXILLARY FIBROADENOMA.			
[ Fibroadenoma TGLS = 1,2-11+12+13+14 ]			
[ Sarcoma TGLS = 1-11+12+13 ]			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Mild
Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 727

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.2 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13334

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**MISSING**

Islets, Pancreatic

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Minimal
Uterus	Endometrium	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 728

TRT#: 8

SEX: Female

DAY ON TEST: 569

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13335

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

**OBSERVATIONS**

Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 4-11 ]			
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Mild
Liver		Basophilic Focus	
		Leukemia Mononuclear	
Lung	Bronchiole	Pigmentation	Minimal
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 3-12 ]			
Nose		Pigmentation	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 729

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13336

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Brain	Clitoral Gland
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Larynx	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
		Pheochromocytoma Benign	
Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
[ Leukemia Mononuclear TGLS = 4-11 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-14,5-7 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-14,5-7 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-14,5-7 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 7-14,5-7 ]			
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			
Spleen		Ectopic Tissue	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 729

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13336

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Ectopic Tissue TGLS = 6-13 ]

[ Leukemia Mononuclear TGLS = 1-12 ]

Thymus

Thyroid Gland

C Cell

Leukemia Mononuclear

Leukemia Mononuclear

Adenoma

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 730

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 626

HISTO: 13337

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mesenteric	Ovary	Pancreas
Parathyroid Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Lymph Node, Mediastinal

OBSERVATIONS

Brain		Compression	
		Hemorrhage	Mild
Eye		Cataract	Mild
[ Cataract TGLS = 2-11 ]			
Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3 ]			
Mammary Gland		Adenocarcinoma	
[ Adenocarcinoma TGLS = 5-13 ]			
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLS = 4-12 ]			
Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Minimal
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 730

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 626

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13337

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Spleen

Note: POSSIBLE EARLY MCL.

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PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 731

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13338

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Larynx	Liver
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Islets, Pancreatic		Hyperplasia	Mild
Kidney		Nephropathy	Chronic, Moderate
Lung	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 732

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13339

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Mild
	Artery	Mineralization	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3. ]			
Nose		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

**ANIMAL ID:** 733

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.2 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13340

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLS = 1-7. ]			
Nose		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 734

TRT#: 8

SEX: Female

DAY ON TEST: 696

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13341

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Clitoral Gland	Esophagus
Heart	Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum
Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic
Mammary Gland	Ovary	Pancreas	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Trachea
Urinary Bladder	Uterus		

OBSERVATIONS

Adrenal Cortex		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Brain		Compression	
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Chronic, Mild
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 3-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Minimal
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose	Respirat Epith	Hyperplasia	Minimal
		Pigmentation	Mild
Parathyroid Gland		Hyperplasia	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1,2-1+8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Thymus		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 734

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 696

**DOSE:** 0.2 PPM

**DISP:** Moribund

**HISTO:** 13341

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Thyroid Gland

C Cell

Hyperplasia

Minimal

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 735

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13342

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Granuloma	Multifocal, Mild
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 736

TRT#: 8

SEX: Female

DAY ON TEST: 710

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13343

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Thymus

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Larynx		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Lung	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Alveolus	Inflammation	Suppurative, Minimal
	Bronchiole	Pigmentation	Minimal
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[ Hyperplasia TGLS = 3-8 ]			
Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 737

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13344

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lymph Node, Mandibular	Lymph Node, Mesenteric	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Trachea	Urinary Bladder	Uterus	

MISSING

Lymph Node, Bronchial

OBSERVATIONS

Brain		Compression Hydrocephalus	Mild
[ Compression TGLS = 5-1 ]			
[ Hydrocephalus TGLS = 5-1 ]			
Heart		Cardiomyopathy	Minimal
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Chronic, Mild
Liver		Granuloma	Multifocal, Minimal
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Lymph Node, Mediastinal		Pigmentation	Mild
Mammary Gland		Fibroadenoma	Multiple
[ Fibroadenoma TGLS = 1,2-11+12+13+14+15 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 738

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13345

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Kidney		Nephropathy	Chronic, Moderate
Liver		Leukemia Mononuclear	
Lung	Alveolus	Hemorrhage	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Bronchiole	Leukemia Mononuclear	
[ Hemorrhage TGLS = 3-3+11 ]		Pigmentation	Mild
Nose	Respirat Epith	Hyperplasia	Mild
	Respirat Epith	Inflammation	Suppurative, Moderate
		Metaplasia	Squamous, Mild
		Pigmentation	Mild
Note: FOCUS ON XS2 ON RIGHT MAX TURB.			
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	
Uterus		Polyp Stromal	
Note: MASS ON SL 12 IS INFARCTED;POLYP IS ALSO ON SL 8XS.			
[ Polyp Stromal TGLS = 2-12 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 739

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13346

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

**MISSING**

Lymph Node, Bronchial	Parathyroid Gland
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Liver		Granuloma	Multifocal, Mild
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
	Respirat Epith	Metaplasia	Squamous, Mild
		Pigmentation	Minimal
Note: FOCUS IN XS1 NEAR RIGHT NASOLAC DUCT.			
Pituitary Gland	Pars Distalis	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 740

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 667

HISTO: 13347

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Esophagus	Heart	Intestine Large, Cecum	Intestine Large, Colon
Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum	Intestine Small, Jejunum
Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	

OBSERVATIONS

Brain		Compression	
Clitoral Gland		Carcinoma	
[ Carcinoma TGLS = 1,2-11+12 ]			
Kidney		Mineralization	Mild
[ Nephropathy TGLS = 4-5 ]		Nephropathy	Chronic, Marked
Larynx		Metaplasia	Squamous, Mild
Liver		Basophilic Focus	
[ Hepatodiaphragmatic Nodule TGLS = 3-4 ]		Hepatodiaphragmatic Nodule	
Lung	Bronchiole	Vacuolization Cytoplasmic	Mild
Mammary Gland		Pigmentation	Mild
Nose	Respirat Epith	Inflammation	Suppurative, Marked
		Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 5-8 ]			
Skin		Abscess	Marked
Urinary Bladder	Transit Epithe	Hyperplasia	Minimal
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 741

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 541

HISTO: 13348

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Ovary	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Glandular
Thymus	Thyroid Gland	Urinary Bladder	Uterus

OBSERVATIONS

Esophagus		Inflammation	Chronic, Moderate
Kidney		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Chronic, Marked
Liver		Vacuolization Cytoplasmic	Moderate
	[ Vacuolization Cytoplasmic TGLS = 1-4 ]		
Lung		Foreign Body	Marked
	Alveolus	Inflammation	Suppurative, Marked
	Bronchiole	Pigmentation	Minimal
	[ Inflammation TGLS = 3-3 ]		
Lymph Node, Mandibular		Hyperplasia	Lymphoid, Moderate
Nose		Foreign Body	Mild
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
	Respirat Epith	Metaplasia	Squamous, Mild
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 2-8 ]		
Stomach, Forestomach		Acanthosis	Mild
		Hyperkeratosis	Mild
Trachea		Inflammation	Chronic, Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 742

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13349

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Liver
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**MISSING**

Adrenal Medulla	Lymph Node, Bronchial
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Minimal
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Minimal
	Peribronchiolr	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3. ]			
Nose	Nasolacrim Dct	Hemorrhage	Mild
		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 743

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13350

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Brain		Compression	
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Moderate
		Nephropathy	Chronic, Moderate
	[ Nephropathy TGLS = 2-5 ]		
	[ Nephropathy TGLS = 2-5 ]		
Larynx		Metaplasia	Squamous, Mild
Liver		Hepatodiaphragmatic Nodule	
	[ Hepatodiaphragmatic Nodule TGLS = 3-11 ]		
Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 1-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 744

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13351

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Mammary Gland	Ovary	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Trachea
Urinary Bladder			

MISSING

Parathyroid Gland

OBSERVATIONS

Brain			
Note: MIDLINE CEREBRAL MASS INTERPRT AS NORMAL PINEAL.			
Kidney		Nephropathy	Chronic, Mild
Liver		Leukemia Mononuclear	
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Lymph Node, Bronchial		Leukemia Mononuclear	
Lymph Node, Mandibular		Leukemia Mononuclear	
Lymph Node, Mediastinal		Leukemia Mononuclear	
Lymph Node, Mesenteric		Leukemia Mononuclear	
Nose	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Mild
		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-12 ]			
Thyroid Gland	C Cell	Hyperplasia	Marked

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 744

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13351

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Uterus

Endometrium

Hyperplasia

Moderate

---

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 745

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 726

HISTO: 13352

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Urinary Bladder	Uterus

OBSERVATIONS

Esophagus		Carcinoma	Metastatic (Thyroid Gland)
Kidney		Nephropathy	Chronic, Moderate
Larynx		Carcinoma	Metastatic (Thyroid Gland)
Liver		Angiectasis	Moderate
Lung		Carcinoma	Metastatic (Thyroid Gland)
	Bronchiole	Pigmentation	Mild
[ Carcinoma TGLS = 2-3 ]			
Lymph Node, Bronchial		Carcinoma	Metastatic (Thyroid Gland)
Lymph Node, Mandibular		Carcinoma	Metastatic (Thyroid Gland)
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 3-8 ]			
Thyroid Gland	C Cell	Carcinoma	
[ Carcinoma TGLS = 1-2+11 ]			
Trachea		Carcinoma	Metastatic (Thyroid Gland)

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 746

TRT#: 8

SEX: Female

DAY ON TEST: 667

DOSE: 0.2 PPM

DISP: Moribund

HISTO: 13353

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Ovary
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder		

**OBSERVATIONS**

Adrenal Cortex		Hyperplasia	Mild
[ Hyperplasia TGLS = 4-5 ]			
Kidney		Nephropathy	Chronic, Minimal
Larynx		Inflammation	Chronic, Minimal
		Metaplasia	Squamous, Mild
Liver		Leukemia Mononuclear	
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Minimal
Nose		Pigmentation	Minimal
Pancreas	Acinus	Atrophy	Mild
		Fibrosis	Mild
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 1-4 ]			
Uterus		Polyp Stromal	
[ Polyp Stromal TGLS = 2-11 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 747

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13354

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**OBSERVATIONS**

Kidney		Mineralization	Mild
		Nephropathy	Chronic, Moderate
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 3-12 ]			
Lung	Alveolus	Hemorrhage	Mild
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
[ Hemorrhage TGLS = 2-3+11 ]			
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Inflammation	Suppurative, Minimal
		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
[ Hyperplasia TGLS = 4-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 748

TRT#: 8

SEX: Female

DAY ON TEST: 528

DOSE: 0.2 PPM

DISP: Dead

HISTO: 13355

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Medulla	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Islets, Pancreatic
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Thymus	Thyroid Gland	Trachea
Urinary Bladder	Uterus		

**MISSING**

Lymph Node, Mesenteric

**AUTO PRECLUDES DIAG.**

Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum		

**OBSERVATIONS**

Adrenal Cortex		Hyperplasia	Mild
Kidney		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Mild
Lung		Congestion	Marked
	Bronchiole	Pigmentation	Minimal
Note: CONGESTION IS POSTMORTEM. [ Congestion TGLS = 2-3 ]			
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 1-11 ]			
Nose		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 749

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13356

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	

**OBSERVATIONS**

Eye		Cataract	Mild
[ Cataract TGLS = 1-11 ]			
Kidney		Nephropathy	Chronic, Minimal
Liver		Hepatodiaphragmatic Nodule	
[ Hepatodiaphragmatic Nodule TGLS = 3-12 ]		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-4 ]			
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
Nose		Pigmentation	Mild
Pancreas	Acinus	Atrophy	Mild
Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
[ Cyst TGLS = 2-8 ]			
Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 4-4 ]			
Uterus	Cervix, Muscularis	Hyperplasia	Moderate
[ Hyperplasia TGLS = 6-13 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 750

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13357

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Stomach, Glandular	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Heart		Leukemia Mononuclear	
Kidney		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Mild
Liver		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
	[ Hepatodiaphragmatic Nodule TGLS = 2-11 ]		
	[ Leukemia Mononuclear TGLS = 1-4+11 ]		
Lung	Pleura	Fibrosis	Mild
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 3-8 ]		
Spleen		Leukemia Mononuclear	
Thymus		Leukemia Mononuclear	
Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 751

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 0.2 PPM

DISP: Interval Sacrifice

HISTO: 13358

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Mammary Gland	Ovary	Pancreas	Parathyroid Gland
Pituitary Gland	Salivary Glands	Skin	Spleen
Stomach, Forestomach	Stomach, Glandular	Thymus	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

**MISSING**

Lymph Node, Bronchial

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
[ Hemorrhage TGLS = 1-3. ]			
Nose		Pigmentation	Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 752

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13359

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric
Ovary	Pancreas	Parathyroid Gland	Pituitary Gland
Salivary Glands	Skin	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

**OBSERVATIONS**

Eye		Cataract	Mild
[ Cataract TGLS = 3-12 ]			
Kidney		Nephropathy	Chronic, Mild
Liver		Hepatodiaphragmatic Nodule	
		Leukemia Mononuclear	
[ Hepatodiaphragmatic Nodule TGLS = 4-13 ]			
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Mammary Gland		Fibroadenoma	Multiple
[ Fibroadenoma TGLS = 1,2-11+14 ]			
Nose		Pigmentation	Mild
Spleen		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 753

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13360

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	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	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Stomach, Forestomach	Stomach, Glandular	Thyroid Gland
Trachea	Urinary Bladder	Uterus	

MISSING

Thymus

OBSERVATIONS

Kidney		Mineralization	Mild
		Nephropathy	Chronic, Moderate
Larynx		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 2-4 ]			
Lung	Alveolus	Hemorrhage	Mild
		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3+11 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-6 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-6 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-6 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 5-6 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

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**ANIMAL ID:** 753

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0.2 PPM

**DISP:** Terminal Sacrifice

**HISTO:** 13360

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLS = 3-8 ]

Spleen

Leukemia Mononuclear

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 754

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Moribund

DAY ON TEST: 628

HISTO: 13361

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Bone	Bone Marrow	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Ovary
Pancreas	Parathyroid Gland	Salivary Glands	Skin
Stomach, Forestomach	Thyroid Gland	Trachea	Urinary Bladder

OBSERVATIONS

Adrenal Cortex		Cytomegaly	Moderate
		Leukemia Mononuclear	
Adrenal Medulla		Leukemia Mononuclear	
Brain		Compression	
		Hemorrhage	Mild
Clitoral Gland		Hyperplasia	Moderate
		Inflammation	Suppurative, Mild
Kidney		Leukemia Mononuclear	
		Nephropathy	Chronic, Mild
Larynx		Metaplasia	Squamous, Minimal
Liver		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 6-4 ]			
Lung		Leukemia Mononuclear	
	Bronchiole	Pigmentation	Mild
Lymph Node	Pancreatic	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 11-4,13-7,12-6 ]			
Lymph Node, Bronchial		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 11-4,13-7,12-6 ]			
Lymph Node, Mandibular		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 11-4,13-7,12-6 ]			
Lymph Node, Mediastinal		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 11-4,13-7,12-6 ]			
Lymph Node, Mesenteric		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLS = 11-4,13-7,12-6 ]			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05114-01

**Test Type:** CHRONIC

**Route:** RESPIRATORY EXPOSURE WHOLE BODY

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Hexachlorocyclopentadiene

**CAS Number:** 77-47-4

**Date Report Requested:** 10/22/2014

**Time Report Requested:** 07:14:14

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

**Lab:** BNW

**ANIMAL ID:** 754

**TRT#:** 8

**DOSE:** 0.2 PPM

**SEX:** Female

**DISP:** Moribund

**DAY ON TEST:** 628

**HISTO:** 13361

**ORGAN AND ACCOUNTABLE SITE STATUS**

Mammary Gland [ Fibroadenoma TGLS = 4,7-12+14 ]		Fibroadenoma	Multiple
Mesentery [ Hemorrhage TGLS = 2-13 ]		Hemorrhage Leukemia Mononuclear	Marked
Nose	Respirat Epith	Hyperplasia Pigmentation	Minimal Minimal
Pituitary Gland [ Adenoma TGLS = 3,9-1+8 ]	Pars Distalis	Adenoma	
Spleen [ Leukemia Mononuclear TGLS = 5-11 ]		Leukemia Mononuclear	
Stomach, Glandular [ Erosion TGLS = 14-8 ]		Erosion	Marked
Thymus [ Leukemia Mononuclear TGLS = 1-2 ]		Leukemia Mononuclear	
Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 755

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13362

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mesenteric
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thyroid Gland	Trachea	Urinary Bladder	Uterus

**MISSING**

Lymph Node, Mediastinal	Thymus
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**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Moderate
Lung	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLS = 1-11 ]			
Nose		Pigmentation	Mild
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 2-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 756

TRT#: 8

SEX: Female

DAY ON TEST: 588

DOSE: 0.2 PPM

DISP: Dead

HISTO: 13363

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Larynx	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Thyroid Gland	Trachea	Urinary Bladder
Uterus			

OBSERVATIONS

Brain		Compression	
		Hemorrhage	Minimal
		Hydrocephalus	Moderate
Kidney		Nephropathy	Chronic, Moderate
Liver		Granuloma	Multifocal, Mild
Lung		Congestion	Marked
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
[ Congestion TGLS = 2-3 ]			
Nose		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLS = 1-8 ]			

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 757

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 0.2 PPM

DISP: Terminal Sacrifice

HISTO: 13364

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Bone	Bone Marrow	Brain
Clitoral Gland	Esophagus	Heart	Intestine Large, Cecum
Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum	Intestine Small, Ileum
Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial	Lymph Node, Mandibular
Lymph Node, Mesenteric	Mammary Gland	Pancreas	Parathyroid Gland
Salivary Glands	Skin	Spleen	Stomach, Forestomach
Stomach, Glandular	Trachea	Urinary Bladder	Uterus

MISSING

Lymph Node, Mediastinal	Thymus
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OBSERVATIONS

Adrenal Medulla		Hyperplasia	Moderate
Kidney		Mineralization	Mild
		Nephropathy	Chronic, Marked
	[ Nephropathy TGLS = 2-5 ]		
Larynx		Metaplasia	Squamous, Mild
Liver		Hepatodiaphragmatic Nodule	
	[ Hepatodiaphragmatic Nodule TGLS = 1,7-13+14 ]		
Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Multifocal, Mild
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
	[ Hyperplasia TGLS = 5,6-11+12 ]		
Nose		Pigmentation	Moderate
Ovary		Cyst	
	[ Cyst TGLS = 3-7 ]		
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 4-8 ]		
Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 758

TRT#: 8

DOSE: 0.2 PPM

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST: 730

HISTO: 13365

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mesenteric	Mammary Gland	Pancreas
Parathyroid Gland	Pituitary Gland	Salivary Glands	Skin
Spleen	Stomach, Forestomach	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

OBSERVATIONS

Kidney		Nephropathy	Chronic, Mild
Larynx		Inflammation	Suppurative, Moderate
		Metaplasia	Squamous, Mild
Liver		Granuloma	Multifocal, Mild
Lung	Alveolar Epith	Hyperplasia	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
Lymph Node, Mediastinal		Pigmentation	Mild
Nose		Foreign Body	Moderate
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Suppurative, Moderate
Ovary		Granulosa Cell Tumor Benign	

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

ANIMAL ID: 759

TRT#: 8

SEX: Female

DAY ON TEST: 597

DOSE: 0.2 PPM

DISP: Dead

HISTO: 13366

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Clitoral Gland	Esophagus	Heart	Intestine Large, Rectum
Intestine Small, Duodenum	Islets, Pancreatic	Liver	Lymph Node, Bronchial
Lymph Node, Mandibular	Lymph Node, Mediastinal	Lymph Node, Mesenteric	Mammary Gland
Ovary	Pancreas	Parathyroid Gland	Salivary Glands
Skin	Spleen	Stomach, Glandular	Thymus
Thyroid Gland	Trachea	Urinary Bladder	Uterus

**AUTO PRECLUDES DIAG.**

Intestine Large, Cecum	Intestine Large, Colon	Intestine Small, Ileum	Intestine Small, Jejunum
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**OBSERVATIONS**

Brain		Compression	
		Hemorrhage	Mild
		Hydrocephalus	Mild
Kidney		Nephropathy	Chronic, Moderate
Larynx		Inflammation	Suppurative, Minimal
		Metaplasia	Squamous, Minimal
Lung		Congestion	Marked
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
	[ Congestion TGLS = 1-3 ]		
Nose	Nasolacrim Dct	Inflammation	Suppurative, Mild
		Pigmentation	Minimal
Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLS = 2-8 ]		
Stomach, Forestomach		Acanthosis	Moderate
		Hyperkeratosis	Moderate
	[ Acanthosis TGLS = 5-8 ]		
	[ Hyperkeratosis TGLS = 5-8 ]		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: 05114-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Hexachlorocyclopentadiene

CAS Number: 77-47-4

Date Report Requested: 10/22/2014

Time Report Requested: 07:14:14

First Dose M/F: NA / NA

Lab: BNW

**ANIMAL ID:** 760

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 459

**DOSE:** 0.2 PPM

**DISP:** Interval Sacrifice

**HISTO:** 13367

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Adrenal Cortex	Adrenal Medulla	Bone	Bone Marrow
Brain	Clitoral Gland	Esophagus	Heart
Intestine Large, Cecum	Intestine Large, Colon	Intestine Large, Rectum	Intestine Small, Duodenum
Intestine Small, Ileum	Intestine Small, Jejunum	Islets, Pancreatic	Larynx
Liver	Lymph Node, Bronchial	Lymph Node, Mandibular	Lymph Node, Mediastinal
Lymph Node, Mesenteric	Mammary Gland	Nose	Ovary
Pancreas	Parathyroid Gland	Pituitary Gland	Salivary Glands
Skin	Spleen	Stomach, Forestomach	Stomach, Glandular
Thymus	Trachea	Urinary Bladder	Uterus

**OBSERVATIONS**

Kidney		Nephropathy	Chronic, Mild
Lung	Alveolus	Hemorrhage	Minimal
	Bronchiole	Pigmentation	Mild
	Peribronchiolr	Pigmentation	Minimal
[ Hemorrhage TGLS = 1-3. ]			
Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

-

**\*\* END OF REPORT \*\***

\* PROTOCOL REQUIRED TISSUE