

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Chlorinated paraffins: C23, 43% chlorine

**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**C Number:** C53543

**Cage Range:** All

**Date Range:** All

**Reasons For Removal:** All

**Removal Date Range:** All

**Treatment Groups:** All

**Study Gender:** Female

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_001

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Acute/Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Inflammation, Granulomatous
	Mediastinal Lymph Node	Pigmentation, Nos
Spleen		Hematopoiesis
Uterus	Endometrium	Hemorrhage

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_002

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Inflammation, Granulomatous
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_003

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
Mammary gland	Mesenteric Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Fibroadenoma
	Anterior Pituitary	Adenoma, Nos
Skin	Foot And Toe Nos	Angiectasis
	Foot And Toe Nos	Hyperkeratosis
Spleen		Inflammation, Chronic
Uterus		Squamous Cell Carcinoma
	Endometrium	Congestion, Nos
		Endometrial Stromal Polyp
		Hyperplasia, Epithelial

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_004

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Clitoral gland

Kidney

Liver

Lymph node

Pancreas

Spleen

Tubule

Inguinal Lymph Node

Acinus

Carcinoma, Nos

Pigmentation, Nos

Inflammation, Granulomatous Focal

Hyperplasia, Lymphoid

Atrophy, Focal

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_005

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
Liver		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Pneumonia, Aspiration
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Skin	Foot And Toe Nos	Hyperkeratosis
Spleen		Congestion, Nos
Unspecified	Foot	Inflammation, Chronic
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_006

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Steatitis
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Neoplastic Nodule
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Angiectasis
	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Spleen		Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_007

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Fibrosis, Cholangio
	Bile Duct	Hyperplasia, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Alveolar/Bronchiolar Adenoma
Lymph node	Pancreatic Lymph Node	Angiectasis
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Spleen		Congestion, Nos
Uterus	Endometrium	Cyst, Nos
	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_008

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Liver		Inflammation, Granulomatous Focal Pigmentation, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus		Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_009

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Pancreas	Acinus	Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Salivary gland		Atrophy, Focal
Spleen		Congestion, Nos
Stomach	Forestomach	Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_010

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Clitoral gland		Cystic Ducts
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Mucosa, Colon	Hyperplasia, Epithelial
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Skin	Foot And Toe Nos	Hyperkeratosis
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_011

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Intestine Small	Mesentery Nos	Steatitis
Kidney		Lymphoma, Histiocytic-Malignant Type
		Nephropathy
Liver	Tubule	Pigmentation, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Pneumonia, Aspiration
Lymph node	Mediastinal Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 09:49:31  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_012

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney	Tubule	Nephropathy Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Nasal cavity		Hyperplasia, Epithelial Infection, Fungal Inflammation, Suppurative
Ovary		Cystic Follicles
Pituitary gland		Cyst, Nos
Spleen		Congestion, Nos
Thyroid		C-Cell Adenoma Hyperplasia, C Cell
Uterus	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_013

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Lymphocytic Inflammatory Infiltrate
Kidney	Tubule	Pigmentation, Nos
Liver		Congestion, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_014

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Cecum, Colon	Parasitism
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Skin	Foot And Toe Nos	Fibrosis
	Foot And Toe Nos	Inflammation, Chronic
Spleen		Congestion, Nos
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_015

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Medulla

Hyperplasia, Focal  
Nephropathy  
Inflammation, Granulomatous Focal  
Lymphocytic Inflammatory Infiltrate  
Neoplastic Nodule

Mammary gland  
Pituitary gland  
Unspecified  
Uterus

Mammary Lobule  
Anterior Pituitary  
Multiple Organs Nos  
Endometrium  
Endometrium

Pigmentation, Nos  
Hyperplasia, Nos  
Adenoma, Nos  
Leukemia, Mononuclear Cell  
Hyperplasia, Cystic  
Inflammation, Suppurative

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_016

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Angiectasis
Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Congestion, Nos
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Cyst, Multiple
Spleen		Congestion, Nos
Stomach	Omentum Nos	Hemorrhage
	Omentum Nos	Inflammation, Chronic
	Omentum Nos	Steatitis
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C53543

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: Chlorinated paraffins: C23, 43% chlorine  
CAS Number: 108171-27-3

Date Report Requested: 10/26/2014

Time Report Requested: 09:49:31

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_017

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 900.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Clitoral gland		Cystic Ducts
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Pancreas	Islets	Islet-Cell Adenoma
Pituitary gland	Anterior Pituitary	Angiectasis
Skin	Tail	Hyperkeratosis
	Tail	Keratoacanthoma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Cyst, Nos
		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_018

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Myocardium Nos

Angiectasis

Inflammation, Chronic

Nephropathy

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Pigmentation, Nos

Mammary gland

Ovary

Pituitary gland

Anterior Pituitary

Anterior Pituitary

Cystic Ducts

Cyst, Nos

Adenoma, Nos

Angiectasis

Spleen

Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_019

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Steatitis
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Carcinoma, Nos
Spleen		Congestion, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_020

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Pheochromocytoma

Brain

Hemorrhage

Heart

Myocardium Nos

Inflammation, Chronic

Liver

Congestion, Nos

Degeneration, Nos

Inflammation, Granulomatous Focal

Pigmentation, Nos

Lung

Hemosiderosis

Stomach

Forestomach

Hyperplasia, Epithelial

Forestomach

Ulcer, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_021

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

---

**OBSERVATIONS**

Liver	Inflammation, Granulomatous Focal Pigmentation, Nos
Lung	Congestion, Nos Pneumonia, Aspiration
Uterus	Dilatation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_022

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cystic Ducts
		Fibrosis, Cholangio
		Inflammation, Granulomatous Focal
		Pigmentation, Nos
	Bile Duct	Retention Of Content
Lung		Alveolar/Bronchiolar Carcinoma
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Cyst, Nos
Skin	Foot And Toe Nos	Hyperkeratosis
Unspecified	Foot	Abscess, Chronic
	Multiple Organs Nos	Lymphoma, Lymphocytic-Malignant Type

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_023

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Lymphocytic Inflammatory Infiltrate
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
	Rectum	Parasitism
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Alveolar Macrophages
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Skin	Foot And Toe Nos	Hyperkeratosis
Spleen		Congestion, Nos
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_024

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Eye	Crystalline Lens	Mineralization
		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pancreas	Acinus	Atrophy, Focal
Skin	Foot And Toe Nos	Hyperkeratosis
	Foot And Toe Nos	Inflammation, Chronic
Spleen		Congestion, Nos
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_025

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Steatitis
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Nasal cavity		Foreign Body, Nos
		Inflammation, Suppurative
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Skin	Foot And Toe Nos	Hyperkeratosis
Spleen		Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_026

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Angiectasis Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lung		Hyperplasia, Adenomatous
Lymph node	Mediastinal Lymph Node	Hyperplasia, Lymphoid
Pancreas	Acinus	Hyperplasia, Nos
Pituitary gland	Anterior Pituitary Anterior Pituitary	Angiectasis Cyst, Nos
Skin	Foot And Toe Nos	Hyperkeratosis
Spleen		Congestion, Nos
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_027

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Skin	Foot And Toe Nos	Hyperkeratosis
	Foot And Toe Nos	Inflammation, Chronic
Spleen		Congestion, Nos
		Hyperplasia, Nodular
Uterus	Endometrium	Hyperplasia, Cystic
	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_028

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Deformity, Nos
		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Inflammation, Acute/Chronic
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Skin	Foot And Toe Nos	Hyperkeratosis
Spleen		Congestion, Nos
		Hyperplasia, Nodular
Unspecified	Foot	Inflammation, Chronic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Chlorinated paraffins: C23, 43% chlorine

**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_029

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Brain	Cerebrum	Reticulosis, Malignant
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Alveolar Macrophages
	Alveoli	Edema, Nos
Lymph node	Mesenteric Lymph Node	Inflammation, Granulomatous
Pancreas	Acinus	Atrophy, Focal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_030

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
Lung		Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C53543

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: Chlorinated paraffins: C23, 43% chlorine  
CAS Number: 108171-27-3

Date Report Requested: 10/26/2014

Time Report Requested: 09:49:31

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_031

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 900.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Pneumonia, Aspiration
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
Skin	Foot And Toe Nos	Hyperkeratosis
	Foot And Toe Nos	Hyperplasia, Focal
	Lip Nos	Inflammation, Suppurative
Spleen		Congestion, Nos
Thyroid		Cyst, Embryonal Duct
Uterus	Endometrium	Cyst, Nos
		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_032

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Intestine Small	Mesentery Nos	Steatitis
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Skin	Foot And Toe Nos	Hyperkeratosis
	Foot And Toe Nos	Hyperplasia, Epithelial
Spleen		Congestion, Nos
Thyroid		Hyperplasia, C Cell
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Chlorinated paraffins: C23, 43% chlorine

**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_033

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Skin	Foot And Toe Nos	Cyst, Epidermal Inclusion
	Foot And Toe Nos	Hyperkeratosis
	Epidermis	Hyperplasia, Nos
Spleen		Congestion, Nos
Thyroid		Hyperplasia, C Cell
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_034

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Steatitis
Kidney		Pigmentation, Nos
Liver	Centrilobular	Degeneration, Nos
		Inflammation, Granulomatous Focal
		Pigmentation, Nos
Mammary gland		Fibroadenoma
		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Stomach	Forestomach	Hyperplasia, Epithelial
	Forestomach	Inflammation, Chronic
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_035

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Rectum	Parasitism
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Fibroadenoma
Spleen		Congestion, Nos
Uterus	Endometrium	Cyst, Nos
	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_036

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain		Carcinoma, Nos, Invasive
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Carcinoma, Nos
Salivary gland		Cystic Ducts
Spleen		Congestion, Nos
Stomach	Forestomach	Inflammation, Chronic
	Glandular Stomach	Inflammation, Chronic
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C53543

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: Chlorinated paraffins: C23, 43% chlorine  
CAS Number: 108171-27-3

Date Report Requested: 10/26/2014

Time Report Requested: 09:49:31

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_037

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 900.0 MG/KG

DISP: Moribund Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Bone marrow		Atrophy, Diffuse
Clitoral gland		Cystic Ducts
Eye		Cataract
	Vitreous Body	Hemorrhage
		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Cyst, Nos
		Degeneration, Nos
		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Stomach	Submucosa	Edema, Nos
	Forestomach	Hyperplasia, Epithelial
	Submucosa	Inflammation, Chronic
Uterus	Broad Ligament	Steatitis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_038

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Fibrosis, Cholangio
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Alveolar Macrophages
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Congestion, Nos
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Skin	Foot And Toe Nos	Hyperkeratosis
	Foot And Toe Nos	Inflammation, Suppurative
Spleen		Congestion, Nos
Thyroid		Hemorrhage
Uterus	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 09:49:31  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_039

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Pigmentation, Nos
Liver		Fibrosis, Cholangio
		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_040

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Mammary gland	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Cystic Ducts
	Anterior Pituitary	Adenoma, Nos
Skin	Foot And Toe Nos	Angiectasis
	Foot And Toe Nos	Cyst, Epidermal Inclusion
	Foot And Toe Nos	Hyperkeratosis
	Foot And Toe Nos	Hyperplasia, Epithelial
Spleen		Inflammation, Chronic
Uterus	Endometrium	Congestion, Nos Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_041

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Nephropathy
Liver		Deformity, Nos
	Bile Duct	Hyperplasia, Cystic
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Pancreas	Acinus	Hyperplasia, Nos
		Lymphocytic Inflammatory Infiltrate
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_042

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney	Tubule	Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Cystic
		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Inflammation, Granulomatous Focal
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Thyroid		Hyperplasia, C Cell
Urinary bladder		Transitional-Cell Carcinoma
Uterus	Endometrium	Hyperplasia, Cystic
	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_043

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Angiectasis Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
Liver		Pigmentation, Nos Hyperplasia, Epithelial Infection, Fungal Inflammation, Suppurative
Nasal cavity		Ulcer, Nos
Pituitary gland	Anterior Pituitary	Cyst, Nos
Skin	Dermis Epidermis	Inflammation, Chronic Ulcer, Nos
Spleen		Hematopoiesis
Thyroid		C-Cell Carcinoma
Unspecified		Fibroma
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_044

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Tarsal Joint	Inflammation, Chronic
Liver		Cyst, Multiple
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Necrosis, Coagulative
		Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
	Mesenteric Lymph Node	Pigmentation, Nos
Spleen		Congestion, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Chlorinated paraffins: C23, 43% chlorine

**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_045

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Thyroid		C-Cell Adenoma
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_046

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Angiectasis Cortical Adenoma
Clitoral gland	Cortex Nos	Hyperplasia, Nos Hyperplasia, Epithelial
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Steatitis
Kidney		Nephropathy
Liver	Bile Duct	Pigmentation, Nos Cyst, Multiple Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node Pancreatic Lymph Node	Hyperplasia, Lymphoid Inflammation, Granulomatous
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_047

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization
Kidney	Tubule	Nephropathy
Liver		Pigmentation, Nos
Lung		Inflammation, Granulomatous Focal
Pancreas	Acinus	Inflammation, Interstitial
Spleen		Atrophy, Nos
Unspecified		Hematopoiesis
Uterus	Endometrium	Sarcoma, Nos
		Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_048

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Spleen		Congestion, Nos
Thyroid		C-Cell Adenoma
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 1\_049

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Clitoral gland		Hyperplasia, Nos
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Cytologic Alteration, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pancreas	Acinus	Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 1\_050

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 900.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Clitoral gland

Eye

Kidney

Liver

Tubule

Lymph node

Mesenteric Lymph Node

Mesenteric Lymph Node

Pancreas

Acinus

Pituitary gland

Anterior Pituitary

Spleen

Cystic Ducts

Retinopathy

Pigmentation, Nos

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Pigmentation, Nos

Hyperplasia, Lymphoid

Inflammation, Granulomatous

Hyperplasia, Nos

Hyperplasia, Focal

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_001

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Hemorrhage

Heart

Medulla

Pheochromocytoma, Malignant

Liver

Myocardium Nos

Inflammation, Chronic

Lung

Inflammation, Granulomatous Focal

Spleen

Pheochromocytoma, Metastatic

Uterus

Congestion, Nos

Endometrial Stromal Polyp

Endometrium

Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_002

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Heart  
Liver

Cortex Nos  
Myocardium Nos

Hypertrophy, Focal  
Inflammation, Chronic  
Inflammation, Granulomatous Focal  
Lymphocytic Inflammatory Infiltrate  
Pigmentation, Nos

Mammary gland

Cystic Ducts  
Fibroadenoma

Pituitary gland

Anterior Pituitary  
Anterior Pituitary

Adenoma, Nos  
Angiectasis

Spleen

Congestion, Nos

Uterus

Dilatation, Nos

Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_003

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Brain	Cerebrum	Hemorrhage
Heart	Myocardium Nos	Inflammation, Chronic
Liver		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Adipose Tissue	Steatitis
Uterus		Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_004

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large  
Liver

Cecum, Colon

Parasitism  
Inflammation, Granulomatous Focal  
Lymphocytic Inflammatory Infiltrate  
Pigmentation, Nos

Mammary gland

Adenocarcinoma, Nos

Pituitary gland

Anterior Pituitary

Cystic Ducts

Anterior Pituitary

Adenoma, Nos

Skin

Tail

Angiectasis

Tail

Acanthosis

Hyperkeratosis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 2\_005

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
		Fibroadenoma
Nasal cavity		Hyperplasia, Epithelial
		Infection, Fungal
		Inflammation, Suppurative
Pituitary gland	Anterior Pituitary	Adenoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_006

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Hyperplasia, Focal
Spleen		Congestion, Nos
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 2\_007

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Liver

Medulla

Hyperplasia, Focal  
Inflammation, Granulomatous Focal  
Lymphocytic Inflammatory Infiltrate  
Pigmentation, Nos

Lymph node

Pancreatic Lymph Node

Hyperplasia, Lymphoid  
Inflammation, Granulomatous

Mammary gland

Mammary Lobule

Hyperplasia, Nos

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

Uterus

Endometrium

Endometrial Stromal Polyp

Broad Ligament

Hyperplasia, Cystic

Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_008

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Spleen		Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_009

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Cecum, Colon	Parasitism
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Cystic Ducts Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 2\_010

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Clitoral gland		Cystic Ducts
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Steatitis
Kidney		Necrosis, Ischemic
Liver	Centrilobular	Degeneration, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 09:49:31  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_011

**TRT#:** 2  
**DOSE:** 100.0 MG/KG

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Cystic Ducts
		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Cyst, Nos
Uterus		Endometrial Stromal Polyp
		Endometrial Stromal Sarcoma
	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 2\_012

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 2\_013

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Uterus	Endometrium	Cyst, Nos
		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

---

**ANIMAL ID:** 2\_014

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Bone marrow		Hyperplasia, Reticulum Cell
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Peyers Patch	Hyperplasia, Lymphoid
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Pigmentation, Nos
Uterus	Endometrium	Hyperplasia, Cystic
	Broad Ligament	Steatitis

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:31

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

**Lab:** NA

**ANIMAL ID:** 2\_015

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Lipoid
	Cortex Nos	Hyperplasia, Focal
Clitoral gland		Cystic Ducts
		Inflammation, Suppurative
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Cecum, Colon	Parasitism
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Skin	Tail	Squamous Cell Papilloma
Thyroid		C-Cell Carcinoma
Uterus	Endometrium	Cyst, Nos
		Endometrial Stromal Polyp
	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_016

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Kidney

Nephropathy

Tubule

Pigmentation, Nos

Liver

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Pigmentation, Nos

Mammary gland

Fibroadenoma

Ovary

Cyst, Nos

Spleen

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Chlorinated paraffins: C23, 43% chlorine

**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_017

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_018

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Lipoid
	Medulla	Pheochromocytoma
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Deformity, Nos
		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland	Mammary Lobule	Hyperplasia, Nos
Spleen		Congestion, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_019

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Hyperostosis Osteosclerosis
Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Thyroid	Pancreatic Lymph Node	Inflammation, Granulomatous
Uterus	Endometrium	C-Cell Carcinoma
	Endometrium	Decidual Alteration, Nos Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_020

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Liver	Inflammation, Granulomatous Focal
Pituitary gland	Cyst, Nos
Urinary bladder	Endometrial Stromal Sarcoma, Invasive
Uterus	Endometrial Stromal Sarcoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_021

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Degeneration, Lipoid

Heart

Myocardium Nos

Inflammation, Chronic

Kidney

Nephropathy

Liver

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Pigmentation, Nos

Lung

Alveolar Macrophages

Mammary gland

Fibroadenoma

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_022

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

---

**OBSERVATIONS**

Heart		Endocarditis, Bacterial
Liver		Lymphocytic Inflammatory Infiltrate
	Centrilobular	Necrosis, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_023

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Spleen		Lymphoma, Histiocytic-Malignant Type
Stomach	Forestomach	Inflammation, Chronic
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_024

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Cecum, Colon	Parasitism
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Alveolar Macrophages
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Cyst, Nos
Spleen		Congestion, Nos
Uterus		Dilatation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C53543

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: Chlorinated paraffins: C23, 43% chlorine  
CAS Number: 108171-27-3

Date Report Requested: 10/26/2014

Time Report Requested: 09:49:32

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_025

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 100.0 MG/KG

DISP: Moribund Sacrifice

HISTO:

**OBSERVATIONS**

Eye	Crystalline Lens	Mineralization
		Retinopathy
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Mediastinal Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Adenocarcinoma, Nos
		Fibroadenoma
		Hyperplasia, Cystic
Nasal cavity		Hyperplasia, Epithelial
		Infection, Fungal
		Inflammation, Suppurative
		Metaplasia, Squamous
		Ulcer, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Cyst, Nos
Spleen		Congestion, Nos
Thyroid		Follicular-Cell Carcinoma
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_026

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Lymphocytic Inflammatory Infiltrate
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Multiple
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Nasal cavity		Infection, Fungal
		Inflammation, Suppurative
Spleen		Congestion, Nos
Stomach	Forestomach	Inflammation, Chronic Focal
Thyroid		Hyperplasia, C Cell
Urinary bladder		Hyperplasia, Epithelial
		Lymphocytic Inflammatory Infiltrate
Uterus	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_027

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Lipoid
Intestine Large	Cecum, Colon	Parasitism
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Carcinoma, Nos
Thyroid		Hyperplasia, C Cell
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_028

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Necrosis, Focal Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Pigmentation, Nos
Nasal cavity		Infection, Fungal Inflammation, Suppurative
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 09:49:32  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 2\_029

**TRT#:** 2  
**DOSE:** 100.0 MG/KG

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis

---

**PRIMARY CAUSE OF DEATH**

-

---



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_030

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Periarteritis
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Cyst, Multiple
Spleen		Congestion, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_031

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Cecum, Colon	Parasitism
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Fibroadenoma
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_032

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Thyroid		C-Cell Adenoma
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_033

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cyst, Nos

Heart

Myocardium Nos

Inflammation, Chronic

Kidney

Tubule

Pigmentation, Nos

Liver

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Spleen

Pigmentation, Nos

Thyroid

Congestion, Nos

C-Cell Carcinoma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C53543

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: Chlorinated paraffins: C23, 43% chlorine  
CAS Number: 108171-27-3

Date Report Requested: 10/26/2014

Time Report Requested: 09:49:32

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_034

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 100.0 MG/KG

DISP: Moribund Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Brain		Hydrocephalus, Internal
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Focal Cellular Change
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Neoplastic Nodule
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Carcinoma, Nos
Spleen		Congestion, Nos
		Hyperplasia, Lymphoid
Stomach	Forestomach	Hyperplasia, Epithelial
	Forestomach	Inflammation, Chronic
	Forestomach	Ulcer, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 09:49:32  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_035

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_036

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Liver

Myocardium Nos

Angiectasis

Inflammation, Chronic

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Pigmentation, Nos

Lung

Congestion, Nos

Pigmentation, Nos

Pneumonia, Aspiration

Lymph node

Pancreatic Lymph Node

Hyperplasia, Lymphoid

Pancreatic Lymph Node

Inflammation, Granulomatous

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Anterior Pituitary

Angiectasis

Stomach

Forestomach

Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_037

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Tubule

Pigmentation, Nos

Liver

Pigmentation, Nos

Lymph node

Mandibular Lymph Node

Sarcoma, Nos, Invasive

Spleen

Hematopoiesis

Unspecified

Sarcoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_038

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Hyperplasia, Adenomatous
Thyroid		C-Cell Adenoma
		Hyperplasia, C Cell
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_039

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Deformity, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland	Mammary Lobule	Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Thyroid		C-Cell Adenoma
		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_040

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Heart

Myocardium Nos

Inflammation, Chronic

Liver

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Pigmentation, Nos

Spleen

Congestion, Nos

Uterus

Endometrial Stromal Polyp

Endometrium

Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_041

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Uterus	Broad Ligament	Steatitis

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_042

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Cyst, Hemorrhagic
Spleen		Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_043

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Clitoral gland		Lymphocytic Inflammatory Infiltrate
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Uterus		Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_044

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Small

Mesentery Nos

Ectopia

Kidney

Peyers Patch

Hyperplasia, Lymphoid

Liver

Tubule

Nephropathy

Pigmentation, Nos

Deformity, Nos

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Pigmentation, Nos

Lymph node

Pancreatic Lymph Node

Edema, Nos

Mammary gland

Pancreatic Lymph Node

Inflammation, Granulomatous

Cystic Ducts

Spleen

Mammary Lobule

Hyperplasia, Nos

Thyroid

Congestion, Nos

Uterus

Endometrium

C-Cell Adenoma

Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_045

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal
		Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Hematopoiesis
Unspecified		Fibrosarcoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_046

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal
		Pigmentation, Nos
Mammary gland		Fibroadenoma
Thyroid		C-Cell Adenoma
Unspecified		Hemorrhage

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Chlorinated paraffins: C23, 43% chlorine

**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_047

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Cystic Ducts
	Mammary Lobule	Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Unspecified		Fibroma
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 2\_048

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Neoplastic Nodule
		Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic
	Endometrium	Squamous Cell Carcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_049

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 2\_050

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 100.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Clitoral gland  
Heart  
Kidney  
Liver

Medulla

Myocardium Nos

Tubule

Lymph node  
Pituitary gland  
Spleen  
Thyroid

Mesenteric Lymph Node

Anterior Pituitary

Pheochromocytoma  
Fibrosis  
Inflammation, Chronic  
Pigmentation, Nos  
Angiectasis  
Inflammation, Granulomatous Focal  
Lymphocytic Inflammatory Infiltrate  
Pigmentation, Nos  
Inflammation, Granulomatous  
Cyst, Nos  
Congestion, Nos  
Cystic Follicles

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_001

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Angiectasis
	Cortex Nos	Atrophy, Nos
Heart	Myocardium Nos	Inflammation, Chronic
	Atrium	Thrombus, Mural
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Alveolar/Bronchiolar Adenoma
		Leukocytosis, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Chlorinated paraffins: C23, 43% chlorine

**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_002

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephropathy
Liver		Cytoplasmic Vacuolization
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Stomach	Forestomach	Inflammation, Chronic
Thyroid		C-Cell Adenoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_003

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic
Liver		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Necrosis, Coagulative
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Cyst, Nos
Spleen		Congestion, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_004

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Unspecified		Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_005

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Angiectasis

Medulla

Hyperplasia, Nos

Clitoral gland

Pheochromocytoma

Heart

Squamous Cell Carcinoma

Kidney

Myocardium Nos

Inflammation, Chronic Focal

Liver

Tubule

Pigmentation, Nos

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Necrosis, Coagulative

Pigmentation, Nos

Lung

Squamous Cell Carcinoma, Metastatic

Lymph node

Mesenteric Lymph Node

Inflammation, Granulomatous

Mammary gland

Cystic Ducts

Skeletal muscle

Back

Osteosarcoma

Spleen

Hematopoiesis

Osteosarcoma, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_006

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain		Deformity, Nos
Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Alveolar Macrophages
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Stomach	Forestomach	Hyperplasia, Epithelial

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_007

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Stomach

Forestomach

Hyperplasia, Epithelial

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_008

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Celiac Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Celiac Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Inflammation, Granulomatous
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic
	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_009

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Lipoid
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Cyst, Nos
Spleen		Congestion, Nos
Unspecified	Multiple Organs Nos	Hyperplasia, Lymphoid
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_010

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Ovary		Cyst, Follicular Nos
Pituitary gland	Anterior Pituitary	Cyst, Nos
Spleen		Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_011

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Angiectasis
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
	Mammary Lobule	Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_012

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Deformity, Nos
		Degeneration, Cystic
		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Cyst, Nos
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic
	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_013

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_014

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Chlorinated paraffins: C23, 43% chlorine

**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_015

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Small

Mesentery Nos

Lymphocytic Inflammatory Infiltrate

Kidney

Mesentery Nos

Periarteritis

Liver

Tubule

Nephropathy

Pigmentation, Nos

Lymph node

Mesenteric Lymph Node

Inflammation, Granulomatous Focal

Lymphocytic Inflammatory Infiltrate

Pigmentation, Nos

Spleen

Pancreatic Lymph Node

Angiectasis

Hyperplasia, Lymphoid

Uterus

Pancreatic Lymph Node

Inflammation, Granulomatous

Congestion, Nos

Endometrium

Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_016

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lung	Alveoli	Histiocytosis
Lymph node	Mesenteric Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Spleen		Congestion, Nos
Thyroid		C-Cell Adenoma
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_017

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hypertrophy, Focal
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Steatitis
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Spleen		Hyperplasia, Lymphoid
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Epithelial

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_018

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Cyst, Multiple
	Anterior Pituitary	Hyperplasia, Nos
Spleen		Congestion, Nos
Uterus	Broad Ligament	Fibroma
	Endometrium	Hyperplasia, Cystic
	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_019

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Large  
Kidney  
Liver

Colon

Parasitism  
Nephropathy  
Inflammation, Granulomatous Focal  
Lymphocytic Inflammatory Infiltrate  
Pigmentation, Nos

Lymph node  
Spleen  
Uterus

Pancreatic Lymph Node

Hyperplasia, Lymphoid  
Hyperplasia, Lymphoid  
Hyperplasia, Cystic  
Steatitis

Endometrium  
Broad Ligament

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_020

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Cystic Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lung		Atelectasis
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Hyperplasia, Lymphoid
Unspecified		Steatitis
Uterus	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_021

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Cyst, Nos
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_022

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Ovary		Granulosa-Cell Carcinoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Hyperplasia, Lymphoid
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_023

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
Pituitary gland	Anterior Pituitary	Pigmentation, Nos Adenoma, Nos
Spleen	Anterior Pituitary	Angiectasis Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 09:49:32  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_024

**TRT#:** 3  
**DOSE:** 300.0 MG/KG

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Kidney		Pyelonephritis, Nos
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Urinary bladder	Pancreatic Lymph Node	Inflammation, Granulomatous Hyperplasia, Epithelial Inflammation, Chronic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_025

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Lymphocytic Inflammatory Infiltrate
		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
		Hyperplasia, Lymphoid
Stomach	Forestomach	Edema, Nos
	Forestomach	Inflammation, Acute/Chronic
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_026

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Cecum, Colon	Parasitism
Intestine Small	Mesentery Nos	Hemorrhage
	Mesentery Nos	Steatitis
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Mediastinal Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_027

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Liver	Bile Duct	Hyperplasia, Nos Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Mammary gland	Mammary Lobule	Fibroadenoma
Pituitary gland	Anterior Pituitary	Hyperplasia, Nos
	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Cyst, Nos
Uterus	Endometrium	Congestion, Nos Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_028

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Angiectasis
	Cortex Nos	Hyperplasia, Nos
Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Spleen		Congestion, Nos
Uterus	Endometrium	Hyperplasia, Cystic
	Broad Ligament	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_029

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Thyroid		Hyperplasia, C Cell
Uterus	Endometrium	Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_030

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Kidney		Inflammation, Chronic
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Angiectasis
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pancreas	Acinus	Atrophy, Focal
	Acinus	Hyperplasia, Focal
Spleen		Congestion, Nos
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	C-Cell Carcinoma, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_031

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver		Deformity, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Skin	Lower Leg	Inflammation, Suppurative
	Lower Leg	Ulcer, Chronic
Spleen		Congestion, Nos
Stomach	Forestomach	Inflammation, Chronic
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic
	Broad Ligament	Steatitis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C53543

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: Chlorinated paraffins: C23, 43% chlorine  
CAS Number: 108171-27-3

Date Report Requested: 10/26/2014

Time Report Requested: 09:49:32

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_032

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Angiectasis
	Cortex Nos	Degeneration, Nos
	Cortex Nos	Hyperplasia, Nos
	Cortex Nos	Lymphocytic Inflammatory Infiltrate
Liver		Pigmentation, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Alveolar/Bronchiolar Adenoma
		C-Cell Carcinoma, Metastatic
Lymph node	Pancreatic Lymph Node	Edema, Nos
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Spleen		Congestion, Nos
Thyroid		C-Cell Carcinoma
Trachea		C-Cell Carcinoma, Invasive
Unspecified	Neck	C-Cell Carcinoma, Invasive
Uterus	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_033

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Kidney

Liver

Lung

Mammary gland

Pituitary gland

Uterus

Tubule

Anterior Pituitary

Anterior Pituitary

Endometrium

Angiectasis

Pigmentation, Nos

Inflammation, Granulomatous Focal

Bronchopneumonia, Acute

Pneumonia, Aspiration

Cystic Ducts

Adenoma, Nos

Angiectasis

Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_034

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Degeneration, Lipoid  
Nephropathy

Liver

Tubule

Pigmentation, Nos  
Inflammation, Granulomatous Focal  
Lymphocytic Inflammatory Infiltrate

Spleen  
Thyroid

Pigmentation, Nos  
Congestion, Nos  
Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 09:49:32  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_035

**TRT#:** 3  
**DOSE:** 300.0 MG/KG

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Cystic
		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
Pancreas		Periarteritis
Spleen		Congestion, Nos
		Hyperplasia, Lymphoid
Thyroid		Hyperplasia, C Cell
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_036

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Cecum, Colon	Leiomyosarcoma
Intestine Small	Mesentery Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung		Alveolar/Bronchiolar Carcinoma
Spleen		Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_037

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Degeneration, Lipoid Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
Lymph node	Pancreatic Lymph Node	Pigmentation, Nos Hyperplasia, Lymphoid
Spleen		Congestion, Nos
Thyroid		C-Cell Adenoma
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_038

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Cystic Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate
Lymph node	Mesenteric Lymph Node	Pigmentation, Nos
Spleen	Mesenteric Lymph Node	Hyperplasia, Lymphoid
Uterus	Endometrium	Lymphangiectasis Congestion, Nos Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_039

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Liver	Bile Duct	Hyperplasia, Cystic Inflammation, Granulomatous Focal Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Cyst, Nos
Spleen		Congestion, Nos
Thyroid		C-Cell Adenoma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_040

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Eye	Vitreous Body Crystalline Lens	Inflammation, Chronic Mineralization Retinopathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Pituitary gland	Anterior Pituitary Anterior Pituitary	Adenoma, Nos Angiectasis
Salivary gland		Inflammation, Chronic
Stomach	Omentum Nos	Steatitis

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_041

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lung	Alveoli	Hemorrhage
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_042

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Degeneration, Lipoid Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Mediastinal Lymph Node	Hyperplasia, Lymphoid
Pituitary gland	Anterior Pituitary Anterior Pituitary	Adenoma, Nos Angiectasis
Spleen		Congestion, Nos
Uterus		Endometrial Stromal Polyp Inflammation, Chronic
	Endometrium	

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_043

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Clitoral gland		Carcinoma, Nos
		Cystic Ducts
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Cytoplasmic Vacuolization
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Neoplastic Nodule
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Edema, Nos
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Spleen		Congestion, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus		Endometrial Stromal Polyp
		Hyperplasia, Lymphoid

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C53543

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
Test Compound: Chlorinated paraffins: C23, 43% chlorine  
CAS Number: 108171-27-3

Date Report Requested: 10/26/2014

Time Report Requested: 09:49:32

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_044

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Angiectasis
	Cortex Nos	Cyst, Nos
	Cortex Nos	Degeneration, Nos
	Medulla	Pheochromocytoma
Heart	Atrium	Thrombus, Mural
Intestine Large	Cecum, Colon	Parasitism
Kidney		Lymphocytic Inflammatory Infiltrate
		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Hyperplasia, Nodular
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Angiectasis
	Mediastinal Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Inflammation, Granulomatous
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Fibroadenoma
Pancreas		Lymphocytic Inflammatory Infiltrate
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Spleen		Congestion, Nos
		Hyperplasia, Lymphoid
Uterus	Broad Ligament	Steatitis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 09:49:32  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_045

**TRT#:** 3  
**DOSE:** 300.0 MG/KG

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Liver		Inflammation, Granulomatous Focal Pigmentation, Nos
Lymph node	Pancreatic Lymph Node Pancreatic Lymph Node Mesenteric Lymph Node	Hyperplasia, Lymphoid Inflammation, Granulomatous Lymphangiectasis
Spleen		Ectopia
Stomach	Glandular Stomach	Inflammation, Acute/Chronic
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_046

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Lipoid
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
Thyroid		C-Cell Adenoma
Uterus	Endometrium	Hyperplasia, Cystic
	Broad Ligament	Steatitis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_047

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain		Deformity, Nos
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Cytologic Alteration, Nos
	Bile Duct	Dilatation, Nos
		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Inflammation, Granulomatous
Mammary gland		Fibroadenoma
		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Carcinoma, Nos
Stomach	Forestomach	Hyperkeratosis
	Forestomach	Hyperplasia, Epithelial
	Forestomach	Inflammation, Chronic Diffuse
	Forestomach	Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_048

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Mammary gland		Fibroadenoma
Spleen		Congestion, Nos
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 3\_049

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Degeneration, Cystic Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic
Kidney	Tubule	Nephropathy Pigmentation, Nos
Liver		Cyst, Nos Inflammation, Granulomatous Focal Lymphocytic Inflammatory Infiltrate Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Pancreas	Acinus	Atrophy, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Hyperplasia, Cystic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 3\_050

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 300.0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney	Tubule	Pigmentation, Nos
Liver		Inflammation, Granulomatous Focal
		Lymphocytic Inflammatory Infiltrate
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Congestion, Nos
		Hyperplasia, Lymphoid
Uterus	Broad Ligament	Steatitis

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_001

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Eye

Cataract

Heart

Retinopathy

Mammary gland

Myocardium Nos

Inflammation, Chronic

Pancreas

Mammary Lobule

Hyperplasia, Nos

Pituitary gland

Acinus

Atrophy, Nos

Anterior Pituitary

Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_002

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Eye

Cataract

Pituitary gland

Anterior Pituitary

Retinopathy

Adenoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Chlorinated paraffins: C23, 43% chlorine

**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_003

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Kidney

Tubule

Pigmentation, Nos

Liver

Bile Duct

Hyperplasia, Nos

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_004

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Eye

Cataract

Heart

Retinopathy

Pancreas

Myocardium Nos

Inflammation, Chronic

Thyroid

Acinus

Hyperplasia, Focal

Uterus

Hyperplasia, C Cell

Endometrium

Endometrial Stromal Polyp

Hyperplasia, Epithelial

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_005

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Degeneration, Lipoid Hyperplasia, Focal
Eye		Cataract Retinopathy
Liver		Deformity, Nos
Mammary gland		Fibroadenoma
Pancreas	Acinus	Hyperplasia, Focal
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_006

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Clitoral gland		Inflammation, Suppurative
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Liver		Neoplastic Nodule
Mammary gland		Fibroadenoma
Thyroid		C-Cell Carcinoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_007

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Eye

Cortex Nos

Degeneration, Lipoid  
Cataract

Heart

Myocardium Nos

Retinopathy  
Inflammation, Chronic  
Lymphocytic Inflammatory Infiltrate

Liver

Mammary gland

Pituitary gland

Anterior Pituitary

Cystic Ducts  
Adenoma, Nos

Spleen

Thyroid

Anterior Pituitary

Angiectasis  
Leukemia, Mononuclear Cell  
C-Cell Carcinoma

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_008

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Eye		Phthisis Bulbi
		Retinopathy
Intestine Large	Colon	Parasitism
Pituitary gland		Hyperplasia, Focal
Thyroid		C-Cell Carcinoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_009

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Liver		Cytoplasmic Vacuolization
Mammary gland		Cystic Ducts
	Mammary Lobule	Hyperplasia, Nos
Pituitary gland		Angiectasis
	Anterior Pituitary	Carcinoma, Nos
Spleen		Pigmentation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_010

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Eye		Phthisis Bulbi Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos Angiectasis
Skin		Keratoacanthoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_011

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Eye		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Mammary gland		Adenosis
		Cystic Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
		Angiectasis
Thyroid		C-Cell Carcinoma
Uterus	Broad Ligament	Steatitis

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_012

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Lymph node  
Pancreas  
Pituitary gland

Cervical Lymph Node Nos  
Acinus

Hyperplasia, Nos  
Atrophy, Focal  
Angiectasis  
Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

**ANIMAL ID:** 4\_013

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Deformity, Nos
		Inflammation, Granulomatous Focal
Mammary gland		Adenocarcinoma, Nos
		Cystic Ducts
	Mammary Lobule	Hyperplasia, Nos
Nasal cavity		Infection, Fungal
		Inflammation, Suppurative
Pituitary gland	Anterior Pituitary	Adenoma, Nos
		Angiectasis
Thyroid		Follicular-Cell Carcinoma
Uterus	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_014

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Uterus

Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_015

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Eye

Cortex Nos

Accessory Structure  
Cataract  
Retinopathy

Heart  
Mammary gland  
Pituitary gland  
Uterus

Myocardium Nos

Inflammation, Chronic  
Fibroadenoma  
Hyperplasia, Focal  
Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_016

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Spleen

Hematopoiesis

Unspecified

Multiple Organs Nos

Squamous Cell Carcinoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_017

**TRT#:** 4

**DOSE:** 0

**SEX:** Female

**DISP:** Terminal Sacrifice

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Eye

Liver

Lymph node

Mammary gland

Centrilobular

Mesenteric Lymph Node

Pancreas

Thyroid

Acinus

Cortical Adenoma

Cataract

Retinopathy

Degeneration, Nos

Angiectasis

Adenosis

Cystic Ducts

Fibroadenoma

Atrophy, Focal

Hyperplasia, C Cell

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_018

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Clitoral gland  
Eye

Heart  
Liver  
Mammary gland

Pituitary gland

Myocardium Nos

Anterior Pituitary

Cystic Ducts  
Cataract  
Retinopathy  
Inflammation, Chronic  
Inflammation, Granulomatous Focal  
Adenocarcinoma, Nos  
Adenoma, Nos  
Cystic Ducts  
Adenoma, Nos  
Angiectasis

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_019

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Clitoral gland  
Eye

Medulla

Hyperplasia, Focal

Cystic Ducts

Cataract

Retinopathy

Heart

Myocardium Nos

Inflammation, Chronic

Mammary gland

Cystic Ducts

Uterus

Endometrial Stromal Polyp

Endometrium

Hyperplasia, Epithelial

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_020

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Eye

Cataract

Lung

Retinopathy

Uterus

Alveolar/Bronchiolar Adenoma

Endometrial Stromal Polyp

Endometrium

Hyperplasia, Cystic

Broad Ligament

Steatitis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_021

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Brain		Deformity, Nos
Heart	Myocardium Nos	Inflammation, Chronic
Mammary gland		Cystic Ducts
		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_022

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Degeneration, Lipoid

Clitoral gland

Carcinoma, Nos

Mammary gland

Cystic Ducts

Spleen

Hematopoiesis

Uterus

Endometrial Stromal Polyp

Endometrium

Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_023

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_024

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Intestine Large  
Kidney  
Lymph node  
Mammary gland  
Pituitary gland  
  
Thyroid

Cortex Nos  
Colon  
  
Mesenteric Lymph Node  
  
Anterior Pituitary

Hematopoiesis  
Parasitism  
Nephropathy  
Angiectasis  
Cystic Ducts  
Adenoma, Nos  
Angiectasis  
C-Cell Adenoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_025

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Cecum, Colon	Parasitism
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_026

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Clitoral gland		Hyperplasia, Nos
Harderian gland	Hardarian Gland	Degeneration, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Hyperplasia, Nos
Stomach	Omentum Nos	Steatitis
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_027

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Brain	Cerebrum	Carcinoma, Nos, Invasive
	Cerebrum	Cyst, Hemorrhagic
Heart	Myocardium Nos	Inflammation, Chronic
Lung		Congestion, Nos
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Carcinoma, Nos
	Anterior Pituitary	Cyst, Nos
Stomach	Forestomach	Edema, Nos
Uterus	Cervix Uteri	Inflammation, Suppurative

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_028

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Brain	Cerebrum	Angiectasis
Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Kidney	Pelvis	Mineralization
Liver		Focal Cellular Change
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Thyroid		Hyperplasia, C Cell
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_029

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Deformity, Nos
		Inflammation, Granulomatous Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Thyroid		C-Cell Adenoma

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_030

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Brain

Cerebrum

Gliosis

Meninges

Inflammation, Chronic

Heart

Myocardium Nos

Inflammation, Chronic

Kidney

Nephropathy

Mammary gland

Cystic Ducts

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Anterior Pituitary

Angiectasis

Uterus

Dilatation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_031

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Bone marrow

Kidney

Mammary gland

Spleen

Unspecified

Tubule

Multiple Organs Nos

Fibrosis, Myelo

Pigmentation, Nos

Cystic Ducts

Fibrosis

Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_032

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Lymphocytic Inflammatory Infiltrate
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_033

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Steatitis
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Angiectasis
Skin		Basal-Cell Tumor
Uterus	Endometrium	Adenoma, Nos
	Endometrium	Hyperplasia, Epithelial

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_034

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Liver		Inflammation, Granulomatous Focal
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_035

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Bone	Skull	Hyperostosis
Clitoral gland		Cystic Ducts
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Thyroid		C-Cell Adenoma
Uterus		Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_036

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Clitoral gland  
Heart  
Liver  
Mammary gland  
  
Pituitary gland

Myocardium Nos

Cystic Ducts  
Inflammation, Chronic  
Lymphocytic Inflammatory Infiltrate  
Adenosis  
Fibroadenoma  
Hyperplasia, Focal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_037

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Mammary gland		Cystic Ducts
Ovary		Cystic Follicles
Pituitary gland		Hyperplasia, Focal
Uterus		Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_038

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Kidney	Pelvis	Hyperplasia, Epithelial
Mammary gland		Cystic Ducts
Pituitary gland		Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_039

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Mammary gland

Adenocarcinoma, Nos

Cystic Ducts

Fibroadenoma

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Anterior Pituitary

Angiectasis

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_040

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Degeneration, Lipoid Pheochromocytoma
Eye		Retinopathy
Liver	Centrilobular	Degeneration, Nos
Mammary gland		Cystic Ducts Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_041

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Mammary gland	Mammary Lobule	Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Cyst, Nos
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_042

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Eye		Cataract
		Retinopathy
Heart	Myocardium Nos	Inflammation, Chronic
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
Thyroid		C-Cell Adenoma
		Cyst, Embryonal Duct
Uterus		Dilatation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_043

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Mammary gland

Pancreas

Pituitary gland

Acinus

Anterior Pituitary

Hyperplasia, Cystic

Atrophy, Nos

Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_044

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Steatitis
Kidney		Nephropathy
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Uterus		Dilatation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_045

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Thyroid		Cyst, Embryonal Duct

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_046

**TRT#:** 4  
**DOSE:** 0

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Hyperostosis
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Lymph node	Mesenteric Lymph Node	Angiectasis
Ovary		Cystic Follicles
Uterus		Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_047

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Stomach	Submucosa	Cyst, Nos
Uterus	Endometrium	Hyperplasia, Cystic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_048

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Mammary gland		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Spleen		Pigmentation, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_049

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Nephropathy
Mammary gland		Cystic Ducts
		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C53543

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Chlorinated paraffins: C23, 43% chlorine  
**CAS Number:** 108171-27-3

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 09:49:32

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

**Lab:** NA

---

**ANIMAL ID:** 4\_050

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Lipoid
Heart	Myocardium Nos	Inflammation, Chronic
Liver		Cytoplasmic Vacuolization
Mammary gland		Adenosis
		Cystic Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Angiectasis
Skeletal muscle	Thorax	Hemangiosarcoma
Skin		Hyperkeratosis
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

**\*\* END OF REPORT \*\***