

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**C Number:** C60253A

**Cage Range:** All

**Date Range:** All

**Reasons For Removal:** All

**Removal Date Range:** All

**Treatment Groups:** All

**Study Gender:** Female

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

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**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_309

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Mineralization
Liver	Bile Duct	Fibrosis
Lung		Inflammation, Chronic
Ovary		Cyst, Nos
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Preputial gland		Carcinoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Endometrium	Thrombosis, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_310

**TRT#:** 1  
**DOSE:** 0

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

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

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**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Bone	Sternum	Osteopetrosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
		Galactocele
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Unspecified	Back	Lipoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_311

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Cortex

Cyst, Nos

Liver

Inflammation, Chronic

Lung

Focal Cellular Change

Lymph node

Inflammation, Chronic

Mandibular Lymph Node

Hyperplasia, Lymphoid

Pancreatic Lymph Node

Hyperplasia, Reticulum Cell

Mediastinal Lymph Node

Pigmentation, Nos

Unspecified

Back

Lipoma

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:06  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_312

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic Inflammation, Interstitial
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts Fibroadenoma
Pituitary gland		Angiectasis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_313

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney	Cortex	Abscess, Nos Inflammation, Acute Focal Inflammation, Chronic Focal Cellular Change Neoplastic Nodule
Liver		Inflammation, Chronic Hyperplasia, Lymphoid Carcinoma, Nos Hematopoiesis
Lung		Hyperplasia, Epithelial Inflammation, Chronic
Lymph node	Mandibular Lymph Node	
Preputial gland		
Spleen		
Urinary bladder		

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**PRIMARY CAUSE OF DEATH**

-

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**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

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**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_314

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Cardiac Valve Myocardium Nos	Inflammation, Chronic Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node Pancreatic Lymph Node	Hyperplasia, Lymphoid Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

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**Test Type:** Long-Term

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**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_315

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Necrosis, Focal
Liver		Inflammation, Chronic
Lung	Mandibular Lymph Node	Hyperplasia, Lymphoid
Lymph node		Fibroadenoma
Mammary gland		Adenoma, Nos
Pituitary gland		Hyperplasia, C Cell
Thyroid		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_316

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
		Squamous Cell Carcinoma
Mammary gland		Fibroadenoma
		Hyperplasia, Nos
Skin	Perineum	Cyst, Epidermal Inclusion
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:06  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_317

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla Cortex Nos	Hyperplasia, Focal Hyperplasia, Focal Metamorphosis, Fatty
Eye	Retina	Cataract Degeneration, Nos
Kidney	Tubule	Mineralization Pigmentation, Nos
Liver		Focal Cellular Change
Lymph node	Mandibular Lymph Node Mesenteric Lymph Node	Hyperplasia, Lymphoid Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Pancreas	Islets	Ectopia Islet-Cell Carcinoma
Pituitary gland		Adenoma, Nos
Salivary gland		Sarcoma, Nos
Skin	Nose Axilla	Basal-Cell Tumor Fibroma
Spleen		Hematopoiesis Hemosiderosis
Stomach		Carcinoma, Nos Cyst, Nos Necrosis, Focal
Thyroid		C-Cell Adenoma
Unspecified	Multiple Sites Nos	Inflammation, Chronic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

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**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

---

**ANIMAL ID:** 1\_318

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Inflammation, Chronic
		Nephrosis, Hydro
Lung		Inflammation, Chronic
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic
Unspecified	Multiple Organs Nos	Endometrial Stromal Sarcoma, Metastatic
Uterus		Endometrial Stromal Sarcoma
	Cervix Uteri	Endometrial Stromal Sarcoma, Invasive
	Cervix Uteri	Hyperkeratosis

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**PRIMARY CAUSE OF DEATH**

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**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_319

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Bone	Skull	Osteopetrosis
Eye	Retina	Cataract
Kidney	Tubule	Degeneration, Nos Inflammation, Chronic Mineralization Pigmentation, Nos
Lung	Mesenteric Lymph Node	Inflammation, Chronic
Lymph node		Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma
Oral mucosa	Palate	Squamous Cell Papilloma
Pituitary gland		Cyst, Nos
Spleen		Hemosiderosis Hyperplasia, Reticulum Cell
Stomach		Acanthosis Hyperkeratosis
Thyroid		Inflammation, Chronic Diffuse C-Cell Carcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_320

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Bone	Skull Sternum	Osteopetrosis Osteopetrosis
Eye	Retina	Degeneration, Nos
Heart	Atrium	Thrombosis, Nos
Kidney		Mineralization
Liver		Granuloma, Nos Metamorphosis, Fatty Neoplastic Nodule
Lung	Alveoli	Histiocytosis Pigmentation, Nos
Lymph node	Cervical Lymph Node Nos Mediastinal Lymph Node Mediastinal Lymph Node Mesenteric Lymph Node	Erythrophagocytosis Erythrophagocytosis Hyperplasia, Reticulum Cell Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos Abdominal Cavity	Inflammation, Chronic Necrosis, Fat
Zymbal gland		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:06  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_321

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver		Metamorphosis, Fatty Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma Galactocele Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis Inflammation, Chronic Diffuse
Thyroid		Necrosis, Focal Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_322

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Nos

Kidney

Cortex Nos

Metamorphosis, Fatty

Liver

Tubule

Inflammation, Chronic

Lung

Pigmentation, Nos

Lymph node

Hepatitis, Toxic

Mammary gland

Mesenteric Lymph Node

Hemorrhage

Ovary

Pigmentation, Nos

Preputial gland

Abscess, Nos

Thyroid

Cyst, Nos

Unspecified

Multiple Organs Nos

Carcinoma, Nos

Hyperplasia, C Cell

Lymphoma, Histiocytic-Malignant Type

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_323

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Hemorrhage

Eye

Retina

Pheochromocytoma

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Inflammation, Chronic Focal

Inflammation, Chronic

Mineralization

Tubule

Pigmentation, Nos

Lung

Inflammation, Chronic

Lymph node

Cervical Lymph Node Nos

Hyperplasia, Lymphoid

Mandibular Lymph Node

Hyperplasia, Lymphoid

Cervical Lymph Node Nos

Hyperplasia, Reticulum Cell

Mammary gland

Fibroadenoma

Pituitary gland

Angiectasis

Thyroid

Hyperplasia, Focal

C-Cell Adenoma

Unspecified

Multiple Organs Nos

Follicular-Cell Carcinoma

Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_324

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Large  
Kidney

Colon

Parasitism  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Hepatitis, Toxic

Lung

Lymph node

Bile Duct

Hyperplasia, Nos  
Inflammation, Chronic

Mammary gland

Ovary

Thyroid

Unspecified

Mandibular Lymph Node

Mesenteric Lymph Node

Hyperplasia, Lymphoid  
Hyperplasia, Reticulum Cell

Fibroadenoma

Hyperplasia, Papillary

Hyperplasia, C Cell

Multiple Organs Nos

Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
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**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:06  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_325

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Bone	Femur	Osteosarcoma
Eye	Retina	Degeneration, Nos
		Inflammation, Chronic Focal
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Colon	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenocarcinoma, Nos
		Fibroadenoma
Pancreas	Islets	Islet-Cell Adenoma
Preputial gland		Carcinoma, Nos
		Cystic Ducts
		Hyperplasia, Nos
		Sarcoma, Nos
Spleen		Hematopoiesis
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_326

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Pigmentation, Nos

Liver  
Lung  
Ovary  
Pituitary gland  
Spleen  
Uterus

Tubule

Focal Cellular Change  
Inflammation, Chronic  
Cyst, Parovarian  
Cyst, Nos  
Hemosiderosis  
Thrombosis, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_327

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Ovary		Cyst, Nos
Spleen		Hematopoiesis
Thyroid		C-Cell Adenoma
		Cyst, Follicular Nos
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:06  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_328

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Bone marrow		Hypoplasia, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
	Bile Duct	Hyperplasia, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Preputial gland		Carcinoma, Nos
Spleen		Hematopoiesis
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_329

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Bone

Heart

Kidney

Liver

Lymph node

Mammary gland

Thyroid

Unspecified

Zymbal gland

Skull

Myocardium Nos

Tubule

Mandibular Lymph Node

Multiple Organs Nos

Pheochromocytoma

Osteopetrosis

Inflammation, Chronic Diffuse

Mineralization

Pigmentation, Nos

Focal Cellular Change

Granuloma, Nos

Hyperplasia, Lymphoid

Cystic Ducts

C-Cell Adenoma

Inflammation, Chronic

Abscess, Nos

Carcinoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_330

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Myocardium Nos

Tubule

Liver

Lung

Lymph node

Mediastinal Lymph Node

Mesenteric Lymph Node

Mammary gland

Ovary

Pituitary gland

Spleen

Uterus

Zymbal gland

Metamorphosis, Fatty

Inflammation, Chronic Focal

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Focal Cellular Change

Inflammation, Chronic

Pigmentation, Nos

Hemorrhage

Hyperplasia, Reticulum Cell

Fibroadenoma

Cyst, Parovarian

Angiectasis

Hyperplasia, Focal

Hematopoiesis

Hemorrhage

Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_331

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos  
Cortex

Metamorphosis, Fatty  
Cyst, Nos  
Inflammation, Chronic  
Mineralization

Liver

Bile Duct  
Bile Duct

Fibrosis  
Hyperplasia, Nos

Lung

Lymph node

Mammary gland

Pancreas

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Fibroadenoma  
Atrophy, Focal  
Ectopia

Pituitary gland

Thyroid

Unspecified

Diaphragm Nos  
Multiple Organs Nos  
Abdominal Cavity

Adenoma, Nos  
Hyperplasia, C Cell  
Hernia, Nos  
Leukemia, Monocytic  
Necrosis, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_332

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla Cortex Nos	Hyperplasia, Focal Metamorphosis, Fatty Thrombosis, Nos
Bone	Sternum	Osteopetrosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Mediastinal Lymph Node	Hyperplasia, Reticulum Cell Pigmentation, Nos
Mammary gland		Fibroadenoma
Ovary		Hyperplasia, Papillary
Pituitary gland		Adenoma, Nos
Unspecified	Abdominal Cavity Flank	Endometrial Stromal Sarcoma, Invasive Fibroma
Uterus		Endometrial Stromal Sarcoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_333

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Inflammation, Chronic

Spleen

Osteosarcoma

Urinary bladder

Hyperplasia, Epithelial

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

---

**ANIMAL ID:** 1\_334

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Hepatitis, Toxic

Lung

Inflammation, Chronic

Mammary gland

Fibroadenoma

Salivary gland

Inflammation, Chronic Focal

Stomach

Inflammation, Chronic Focal

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_335

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Hyperplasia, Focal  
Inflammation, Chronic

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos

Lung

Lymph node

Mammary gland

Mesenteric Lymph Node

Metamorphosis, Fatty  
Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Adenoma, Nos  
Cystic Ducts  
Fibroadenoma  
Carcinoma, Nos  
Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_336

**TRT#:** 1

**DOSE:** 0

**SEX:** Female

**DISP:** Natural Death

**DAY ON TEST:**

**HISTO:**

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**OBSERVATIONS**

Kidney	Inflammation, Chronic
Liver	Necrosis, Focal
Lung	Inflammation, Chronic
Spleen	Hematopoiesis
Uterus	Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:06

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

**Lab:** NA

**ANIMAL ID:** 1\_337

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
		Necrosis, Focal
		Thrombosis, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Lymphangiectasis
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
Thyroid		Follicular-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

ANIMAL ID: 1_338	TRT#: 1 DOSE: 0	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: HISTO:
<b>OBSERVATIONS</b>			
Adrenal gland	Cortex Nos Medulla Cortex Nos	Hyperplasia, Focal Hyperplasia, Focal Metamorphosis, Fatty	
Esophagus Eye		Hyperkeratosis Cataract Degeneration, Nos Hemorrhage	
Liver		Synechia, Posterior Focal Cellular Change Granuloma, Nos Metamorphosis, Fatty	
Lymph node Mammary gland Pituitary gland	Mediastinal Lymph Node	Erythrophagocytosis Fibroadenoma Cyst, Nos Hyperplasia, Focal	
Spleen	Follicles	Atrophy, Nos Fibrosis, Focal Hemosiderosis	
Stomach	Submucosa	Acanthosis Edema, Nos Hyperkeratosis Ulcer, Perforated	
Unspecified	Multiple Organs Nos Multiple Organs Nos	Inflammation, Chronic Necrosis, Nos	
<b>PRIMARY CAUSE OF DEATH</b>			
-			

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_339

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney	Tubule	Inflammation, Chronic Pigmentation, Nos
Liver		Focal Cellular Change Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts Fibroadenoma
Pituitary gland		Adenoma, Nos
Thyroid		Follicular-Cell Adenoma Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_340

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Cortical Adenoma

Hyperplasia, Focal

Kidney

Metamorphosis, Fatty

Inflammation, Chronic

Mineralization

Liver

Tubule

Pigmentation, Nos

Metamorphosis, Fatty

Lymph node

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Mammary gland

Cystic Ducts

Fibroadenoma

Galactocele

Thyroid

C-Cell Adenoma

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_341

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
		Galactocele
Pancreas		Acinar-Cell Adenoma
Pituitary gland		Angiectasis
Spleen		Hematopoiesis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
Thyroid		Follicular-Cell Carcinoma
Trachea		Follicular-Cell Carcinoma, Invasive
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 1\_342

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos Atrium	Inflammation, Chronic Diffuse Thrombosis, Nos
Kidney		Inflammation, Chronic Mineralization
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma
Nasal cavity	Turbinates Nos	Inflammation, Chronic
Pituitary gland		Adenoma, Nos
Spleen		Hemorrhage
Stomach		Necrosis, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_343

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
Lung		Congestion, Nos
		Hemorrhage
		Inflammation, Chronic
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Thyroid		C-Cell Adenoma
Uterus		Endometrial Stromal Sarcoma

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_344

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla  
Cortex Nos

Ectopia  
Hyperplasia, Focal  
Metamorphosis, Fatty  
Thrombosis, Nos

Bone  
Kidney

Sternum

Osteopetrosis  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Leukemia, Monocytic  
Metamorphosis, Fatty

Lung  
Lymph node  
Ovary

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Cyst, Follicular Nos

Skin  
Spleen

Flank

Fibrosarcoma  
Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_345

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Esophagus		Inflammation, Chronic Diffuse Necrosis, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Metamorphosis, Fatty Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Galactocele
Spleen		Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse Necrosis, Focal
Unspecified	Groin	Fibroadenoma
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_346

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Fibrosis, Focal
Intestine Small	Duodenum	Necrosis, Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Pancreas		Atrophy, Focal
Spleen	Follicles	Atrophy, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic
		Necrosis, Nos
Uterus		Endometrial Stromal Polyp
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_347

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Tubule

Pigmentation, Nos  
Necrosis, Focal

Liver  
Lung  
Lymph node

Mesenteric Lymph Node  
Pancreatic Lymph Node  
Pancreatic Lymph Node

Inflammation, Chronic  
Amyloidosis  
Hyperplasia, Lymphoid  
Hyperplasia, Reticulum Cell

Mammary gland

Carcinoma, Nos  
Cystic Ducts  
Fibroadenoma  
Hyperplasia, Nos

Pituitary gland  
Stomach

Angiectasis  
Acanthosis  
Hyperkeratosis  
Inflammation, Chronic Focal

Thyroid  
Unspecified

Multiple Organs Nos

Follicular-Cell Carcinoma  
Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:07

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_348

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Bone	Sternum	Osteopetrosis
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney	Cortex	Cyst, Nos
		Inflammation, Chronic
		Mineralization
Liver	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Pancreas	Islets	Islet-Cell Carcinoma
Spleen		Hematopoiesis
Stomach	Muscularis	Degeneration, Nos
	Fundus	Hyperplasia, Diffuse
		Mineralization
Thyroid		C-Cell Carcinoma
		Follicular-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_349

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver		Focal Cellular Change Granuloma, Nos Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts Fibroadenoma
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Stomach		Mineralization
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_350

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Preputial gland		Cyst, Nos Inflammation, Acute
Spleen		Hemosiderosis
Stomach		Acanthosis Hyperkeratosis
Unspecified	Diaphragm Nos	Inflammation, Chronic Diffuse
Zymbal gland		Inflammation, Acute Focal Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:07

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_351

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Myocardium Nos

Tubule

Liver

Lung

Lymph node

Mammary gland

Mesenteric Lymph Node

Pancreas

Pituitary gland

Salivary gland

Spleen

Trachea

Unspecified

Multiple Organs Nos

Uterus

Hyperplasia, Focal

Inflammation, Chronic Diffuse

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Tubular-Cell Adenocarcinoma

Metamorphosis, Fatty

Inflammation, Chronic

Hyperplasia, Reticulum Cell

Carcinoma In Situ, Nos

Cystic Ducts

Fibroadenoma

Galactocele

Sarcoma, Nos, Invasive

Ectopia

Adenoma, Nos

Sarcoma, Nos

Necrosis, Nos

Inflammation, Chronic

Leukemia, Monocytic

Sarcoma, Nos, Invasive

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_352

**TRT#:** 1  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

**OBSERVATIONS**

Adrenal gland	Periadrenal Tissue Medulla Cortex Nos	Hemorrhage Hyperplasia, Focal Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Cataract Degeneration, Nos
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma Galactocele
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_353

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos  
Cortex

Liver  
Lung  
Mammary gland

Metamorphosis, Fatty  
Inflammation, Chronic Focal  
Cyst, Nos  
Inflammation, Chronic  
Focal Cellular Change  
Inflammation, Chronic

Pituitary gland

Cystic Ducts  
Fibroadenoma  
Hyperplasia, Nos  
Adenoma, Nos  
Angiectasis

Spleen  
Thyroid

Hemosiderosis  
Hyperplasia, C Cell

Unspecified  
Zymbal gland

Back

Fibroma  
Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_354

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Brain	Cerebellum Nos	Astrocytoma
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Galactocele
		Hyperplasia, Nos
Thyroid		Follicular-Cell Carcinoma
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_355

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Liver  
Lung  
Lymph node  
Pituitary gland  
Salivary gland

Mandibular Lymph Node

Metamorphosis, Fatty  
Inflammation, Chronic  
Hyperplasia, Lymphoid  
Adenoma, Nos  
Edema, Nos  
Inflammation, Chronic  
Hematopoiesis  
C-Cell Carcinoma  
Keratoacanthoma

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_356

**TRT#:** 1  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Pheochromocytoma  
Inflammation, Chronic  
Focal Cellular Change  
Granuloma, Nos  
Metamorphosis, Fatty  
Necrosis, Focal

Lung

Inflammation, Chronic  
Pigmentation, Nos

Lymph node  
Mammary gland

Mandibular Lymph Node

Hyperplasia, Lymphoid  
Cystic Ducts  
Hyperplasia, Nos

Pituitary gland

Adenoma, Nos  
Angiectasis

Spleen

Hematopoiesis  
Hemosiderosis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_357

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Tubule

Inflammation, Chronic

Liver

Pigmentation, Nos

Focal Cellular Change

Lung

Metamorphosis, Fatty

Inflammation, Chronic

Lymph node

Mesenteric Lymph Node

Lymphangiectasis

Mammary gland

Mesenteric Lymph Node

Pigmentation, Nos

Pituitary gland

Cystic Ducts

Fibroadenoma

Stomach

Adenoma, Nos

Inflammation, Chronic Focal

Thyroid

Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_358

**TRT#:** 1

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

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**OBSERVATIONS**

Kidney  
Liver  
Lung  
Pituitary gland  
Stomach

Inflammation, Chronic  
Metamorphosis, Fatty  
Inflammation, Chronic  
Adenoma, Nos  
Acanthosis  
Hyperkeratosis  
Inflammation, Chronic  
Necrosis, Focal  
Hyperplasia, C Cell  
Endometrial Stromal Polyp

Thyroid  
Uterus

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_359

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Cortex Nos	Hyperplasia, Focal Metamorphosis, Fatty
Kidney		Mineralization
Lymph node	Mesenteric Lymph Node Mediastinal Lymph Node	Hyperplasia, Reticulum Cell Pigmentation, Nos
Mammary gland		Cystic Ducts Fibroadenoma Galactocele
Ovary		Cyst, Follicular Nos
Pancreas	Islets	Islet-Cell Carcinoma
Pituitary gland		Angiectasis Hemorrhage
Stomach		Acanthosis Hyperkeratosis
Thyroid		Necrosis, Focal Hyperplasia, C Cell Hyperplasia, Follicular Cell
Unspecified	Multiple Organs Nos Multiple Organs Nos	Pigmentation, Nos Inflammation, Chronic
Urinary bladder		Leukemia, Monocytic Hyperplasia, Papillary Transitional-Cell Papilloma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_360

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Focal Cellular Change Hepatitis, Toxic Pigmentation, Nos
Liver		Inflammation, Chronic
Lung		Hyperplasia, Lymphoid
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Mammary gland		Leukemia, Monocytic
Unspecified	Multiple Organs Nos	Hydrometra
Uterus		Cystic Ducts
Zymbal gland		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_361

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Cardiac Valve

Inflammation, Chronic Focal

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Inflammation, Chronic

Mineralization

Tubule

Pigmentation, Nos

Lung

Inflammation, Chronic

Mammary gland

Fibroadenoma

Pancreas

Hyperplasia, Nos

Atrophy, Focal

Thyroid

Ectopia

Unspecified

Multiple Organs Nos

C-Cell Carcinoma

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_362

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Sternum	Osteopetrosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
		Pigmentation, Nos
Lung		C-Cell Carcinoma, Metastatic
		Inflammation, Chronic
Lymph node	Cervical Lymph Node Nos	C-Cell Carcinoma, Metastatic
	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Spleen		Hematopoiesis
Stomach	Muscularis	Degeneration, Nos
		Mineralization
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_363

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Myocardium Nos

Pheochromocytoma

Inflammation, Chronic Focal

Inflammation, Chronic

Mineralization

Tubule

Pigmentation, Nos

Liver

Granuloma, Nos

Lung

Metamorphosis, Fatty

Mammary gland

Inflammation, Chronic

Pituitary gland

Cystic Ducts

Adenoma, Nos

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_364

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Fibrosis Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Ileocolic Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma Galactocele
Pituitary gland		Angiectasis
Spleen		Hematopoiesis
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_365

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Inflammation, Chronic

Lymph node

Mandibular Lymph Node

Hyperplasia, Lymphoid

Mammary gland

Cystic Ducts

Pituitary gland

Adenoma, Nos

Spleen

Angiectasis

Unspecified

Fibrosis, Multifocal

Ear

Fibrosarcoma

Multiple Organs Nos

Leukemia, Monocytic

Uterus

Cervix Uteri

Acanthosis

Cervix Uteri

Hyperkeratosis

Cervix Uteri

Inflammation, Chronic

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 1\_366

**TRT#:** 1

**DOSE:** 0

**SEX:** Female

**DISP:** Natural Death

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Lung

Spleen

Inflammation, Chronic

Necrosis, Focal

Inflammation, Chronic

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_367

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Cyst, Nos
Spleen		Hemosiderosis
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_368

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cortical Carcinoma
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Ovary		Mesothelioma, Nos
		Sertoli-Cell Tumor
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
Unspecified	Abdominal Cavity	Necrosis, Focal
Uterus		Necrosis, Fat
		Endometrial Stromal Sarcoma
		Hemorrhage

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_369

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone marrow		Hypoplasia, Nos
Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
Liver		Congestion, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Skin	Lower Leg	Basal-Cell Carcinoma
Spleen	Follicles	Atrophy, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal
Thyroid		C-Cell Adenoma
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_370

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Bone marrow		Hyperplasia, Nos
Kidney		Fibrosis, Diffuse
	Tubule	Inflammation, Chronic
	Tubule	Nuclear Enlargement
Liver		Pigmentation, Nos
		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hematopoiesis
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos
		Cystic Ducts
		Fibroadenoma
		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Thymus		Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_371

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Pituitary gland		Hyperplasia, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_372

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Cataract Degeneration, Nos Hemorrhage
Kidney		Inflammation, Chronic Mineralization
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Renal Lymph Node	Erythrophagocytosis
	Renal Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Renal Lymph Node	Lymphangiectasis
Mammary gland		Cystic Ducts Fibroadenoma Hyperplasia, Nos
Parathyroid gland		Hyperplasia, Nos
Thyroid		C-Cell Adenoma
Unspecified	Mediastinum Nos	Squamous Cell Carcinoma, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_373

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Inflammation, Chronic

Lymph node

Mandibular Lymph Node

Hyperplasia, Lymphoid

Mammary gland

Cystic Ducts

Unspecified

Multiple Organs Nos

Fibroadenoma

Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_374

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebellum Nos	Astrocytoma
Heart	Myocardium Nos	Fibrosis, Focal
	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Pituitary gland		Cyst, Nos
Stomach		Acanthosis
		Hyperkeratosis

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:07

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_375	TRT#: 1 DOSE: 0	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: HISTO:
<b>OBSERVATIONS</b>			
Adrenal gland	Cortex Nos Medulla Cortex Nos	Degeneration, Nos Hyperplasia, Focal Metamorphosis, Fatty	
Eye	Retina	Cataract Degeneration, Nos Hemorrhage	
Heart	Myocardium Nos	Inflammation, Chronic Diffuse	
Kidney		Inflammation, Chronic Mineralization	
Liver	Tubule	Pigmentation, Nos Granuloma, Nos Metamorphosis, Fatty Pigmentation, Nos Inflammation, Chronic	
Lung		Cystic Ducts	
Mammary gland		Angiectasis	
Pituitary gland		Hematopoiesis	
Spleen		Acanthosis	
Stomach		Hyperkeratosis Inflammation, Chronic Diffuse	
Thyroid		C-Cell Carcinoma	
Uterus		Endometrial Stromal Polyp Hydrometra Inflammation, Chronic	
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_376

**TRT#:** 1  
**DOSE:** 0

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

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

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**OBSERVATIONS**

Eye	Retina	Cataract Degeneration, Nos Hemorrhage
Heart Kidney	Myocardium Nos	Inflammation, Chronic Inflammation, Chronic Mineralization
Lung Pituitary gland Thyroid	Tubule	Pigmentation, Nos Inflammation, Chronic Adenoma, Nos C-Cell Adenoma
Unspecified	Multiple Organs Nos	Hyperplasia, C Cell Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_377

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla Cortex Nos	Hyperplasia, Focal Metamorphosis, Fatty Pheochromocytoma
Esophagus		Hyperkeratosis
Eye	Retina	Cataract
Kidney	Tubule	Degeneration, Nos Inflammation, Chronic
Liver		Pigmentation, Nos
Lung		Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Inflammation, Chronic
Mammary gland		Hyperplasia, Reticulum Cell Cystic Ducts Fibroadenoma Hyperplasia, Nos
Parathyroid gland		Adenoma, Nos
Pituitary gland		Adenoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_378

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebrum	Astrocytoma
Intestine Large	Large Intestine, Colon	Parasitism
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Zymbal gland		Carcinoma, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

ANIMAL ID: 1_379	TRT#: 1 DOSE: 0	SEX: Female DISP: Natural Death	DAY ON TEST: HISTO:
<b>OBSERVATIONS</b>			
Adrenal gland		Pheochromocytoma, Malignant	
Heart	Myocardium Nos	Inflammation, Chronic Focal	
Kidney		Inflammation, Chronic	
	Perirenal Tissue	Pheochromocytoma, Invasive	
Liver		Focal Cellular Change	
		Metamorphosis, Fatty	
Lung		Inflammation, Chronic	
		Pheochromocytoma, Metastatic	
Spleen		Hematopoiesis	
<hr/>			
PRIMARY CAUSE OF DEATH		-	

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_380

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Skull	Osteopetrosis
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Necrosis, Focal
Lung		Inflammation, Chronic
Pancreas		Acinar-Cell Adenoma
		Ectopia
	Acinus	Hyperplasia, Focal
Pituitary gland		Adenoma, Nos
		Angiectasis
Preputial gland		Carcinoma, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_381

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Bone marrow  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Fibrosis, Myelo  
Inflammation, Chronic  
Mineralization

Tubule

Pigmentation, Nos  
Hepatitis, Toxic  
Metamorphosis, Fatty

Liver

Inflammation, Chronic

Lung

Mammary gland

Fibroadenoma

Ovary

Cyst, Parovarian

Stomach

Acanthosis

Hyperkeratosis

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

Uterus

Endometrium

Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_382

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_383

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Skull	Osteopetrosis
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Cornea	Inflammation, Chronic Diffuse
Kidney	Myocardium Nos	Inflammation, Chronic Diffuse
Liver		Inflammation, Chronic
		Focal Cellular Change
		Hepatocellular Carcinoma
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Erythrophagocytosis
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
		Hyperplasia, Nos
Pituitary gland		Angiectasis
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Ulcer, Perforated
Thyroid		C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_384

**TRT#:** 1

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

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**OBSERVATIONS**

Eye  
Kidney  
Liver  
Lung  
Mammary gland

Phthisis Bulbi  
Inflammation, Chronic  
Metamorphosis, Fatty  
Inflammation, Chronic  
Adenocarcinoma, Nos  
Cystic Ducts  
Fibroadenoma  
Hyperplasia, Nos  
Adenoma, Nos

Pituitary gland

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_385

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Liver

Focal Cellular Change

Lung

Inflammation, Chronic

Mammary gland

Fibroadenoma

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_386

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Eye	Retina	Cataract Degeneration, Nos Hemorrhage
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos Fibroadenoma
Ovary		Cyst, Nos
Pituitary gland		Adenoma, Nos
Unspecified	Groin	Angiectasis Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_387

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Liver

Focal Cellular Change

Metamorphosis, Fatty

Lung

Bronchus

Inflammation, Chronic

Mammary gland

Adenoma, Nos

Pituitary gland

Adenoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_388

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Eye	Retina	Cataract Degeneration, Nos Hemorrhage
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Hematopoiesis Necrosis, Focal
Lung		Hemorrhage Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos Cystic Ducts
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Thyroid		Hyperplasia, C Cell
Uterus		Hemangiosarcoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_389

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Cataract Degeneration, Nos Inflammation, Chronic
Intestine Small	Crystalline Lens	Rupture
Kidney	Mesentery Nos	Inflammation, Chronic Focal Inflammation, Chronic Mineralization
Liver	Tubule Bile Duct Bile Duct	Pigmentation, Nos Hyperplasia, Nos Inflammation, Chronic Neoplastic Nodule
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Pituitary gland		Angiectasis Hyperplasia, Nos
Spleen		Hematopoiesis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse
Thyroid		Ulcer, Perforated
Unspecified	Multiple Organs Nos	Follicular-Cell Carcinoma Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_390

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Descending, Colon	Adenomatous Polyp, Nos
Intestine Small	Duodenum	Leiomyosarcoma
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
		Angiectasis
Skin	Ear	Squamous Cell Papilloma
Spleen		Hematopoiesis
Thyroid		C-Cell Adenoma
Uterus		Hydrometra

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:07

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_391

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Bone	Sternum	Osteopetrosis
Eye	Retina	Degeneration, Nos Hemorrhage
	Cornea	Inflammation, Chronic Diffuse
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Ovary		Cyst, Nos
Pancreas		Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Angiectasis
Thyroid		Hyperplasia, C Cell
Uterus	Cervix Uteri	Acanthosis
Zymbal gland		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_392

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Focal Cellular Change
Liver		Inflammation, Chronic
Lung		Hyperplasia, Reticulum Cell
Lymph node	Mesenteric Lymph Node	Fibroadenoma
Mammary gland		Ectopia
Pancreas		Angiectasis
Pituitary gland		Hyperplasia, Focal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_393

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebrum	Astrocytoma
Kidney		Inflammation, Chronic
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Pituitary gland		Adenoma, Nos
Stomach		Inflammation, Chronic

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_394

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver		Granuloma, Nos Metamorphosis, Fatty
Lung	Alveoli	Histiocytosis Inflammation, Chronic
Lymph node	Cervical Lymph Node Nos	C-Cell Carcinoma, Metastatic
Mammary gland		Fibroadenoma Hyperplasia, Diffuse
Pituitary gland		Adenoma, Nos
Skin		Hyperkeratosis
Stomach		Acanthosis Inflammation, Chronic Focal
Thyroid		C-Cell Carcinoma
Unspecified	Back	Fibroma
	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Endometrium	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_395

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Degeneration, Nos Hemorrhage
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
		Galactocele
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_396

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
Pituitary gland		Adenoma, Nos
Unspecified	Groin	Fibroma

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:07

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_397

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Spleen		Hematopoiesis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Necrosis, Focal
Uterus		Endometrial Stromal Sarcoma
	Cervix Uteri	Endometrial Stromal Sarcoma, Invasive

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_398

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos

Lung

Lymph node

Mammary gland

Thyroid

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Fibroadenoma  
Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_399

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Hyperplasia, Focal
Heart	Cortex Nos	Metamorphosis, Fatty
Kidney	Myocardium Nos	Inflammation, Chronic Focal Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Inflammation, Chronic
Lung		
Lymph node	Mandibular Lymph Node Mesenteric Lymph Node	Hyperplasia, Lymphoid Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos
Pituitary gland		Adenoma, Nos Hyperplasia, Focal
Thyroid		C-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_400

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hepatitis, Toxic
		Hyperplasia, Nos
		Necrosis, Focal
		Neoplastic Nodule
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
Ovary		Cyst, Nos
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Hydrometra

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_401

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
		Papillary Cystadenoma, Nos
Pituitary gland		Cyst, Nos
Skin	Back	Squamous Cell Papilloma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
	Back	Lipoma
Uterus		Hemorrhage

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_402

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Calcification, Nos
		Inflammation, Chronic
Lung		Inflammation, Chronic
Uterus		Abscess, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:07

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_403

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Bone	Skull	Osteopetrosis
Eye	Retina	Degeneration, Nos
		Inflammation, Chronic Focal
Heart	Atrium	Thrombosis, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
Lung		Edema, Nos
	Alveoli	Histiocytosis
		Inflammation, Acute Focal
Lymph node	Mediastinal Lymph Node	Erythrophagocytosis
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Hyperplasia, Diffuse
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Skin	Tail	Fibrosarcoma
Spleen		Hematopoiesis
Stomach	Fundus	Hyperplasia, Diffuse
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Inflammation, Chronic
	Multiple Organs Nos	Mineralization
	Multiple Organs Nos	Pigmentation, Nos
Uterus	Cervix Uteri	Acanthosis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_404

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Medulla Cortex Nos	Hyperplasia, Focal Metamorphosis, Fatty Pheochromocytoma
Blood vessel	Mesenteric Artery Nos Mesenteric Artery Nos Mesenteric Artery Nos	Inflammation, Acute/Chronic Necrosis, Nos Thrombosis, Nos
Kidney		Inflammation, Chronic
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Renal Lymph Node Renal Lymph Node	Hemorrhage Lymphangiectasis
Mammary gland		Fibroadenoma Hyperplasia, Nos
Pancreas		Ectopia Periarteritis
Pituitary gland		Adenoma, Nos
Spleen	Follicles	Atrophy, Nos Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse
Thyroid		Necrosis, Focal C-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_405

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Liver	Bile Duct	Fibrosis
	Bile Duct	Hyperplasia, Nos
		Necrosis, Nos
Lymph node	Mediastinal Lymph Node	Congestion, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Necrosis, Focal
Thymus		Hemorrhage
Unspecified	Multiple Organs Nos	Inflammation, Chronic
	Multiple Organs Nos	Leukemia, Monocytic
	Abdominal Cavity	Necrosis, Fat
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_406

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Kidney

Liver

Lung

Lymph node

Mammary gland

Pituitary gland

Spleen

Tubule

Mandibular Lymph Node

Necrosis, Focal

Inflammation, Chronic

Pigmentation, Nos

Metamorphosis, Fatty

Necrosis, Focal

Thrombus, Fibrin

Hyperplasia, Lymphoid

Cystic Ducts

Fibroadenoma

Adenoma, Nos

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_407

**TRT#:** 1

**DOSE:** 0

**SEX:** Female

**DISP:** Natural Death

**DAY ON TEST:**

**HISTO:**

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**OBSERVATIONS**

Kidney

Liver

Inflammation, Chronic

Focal Cellular Change

Granuloma, Nos

Metamorphosis, Fatty

Necrosis, Focal

Adenoma, Nos

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Pituitary gland

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_408

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Fibrosis, Focal

Kidney

Tubule

Inflammation, Chronic

Liver

Pigmentation, Nos

Focal Cellular Change

Lung

Pigmentation, Nos

Inflammation, Chronic

Lymph node

Mandibular Lymph Node

Hyperplasia, Lymphoid

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Renal Lymph Node

Lymphangiectasis

Renal Lymph Node

Pigmentation, Nos

Uterus

Cervix Uteri

Leiomyosarcoma

Vagina

Leiomyosarcoma, Invasive

Leiomyosarcoma, Invasive

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_409

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Esophagus		Hyperkeratosis
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Hyperplasia, Focal
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_410

**TRT#:** 1

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

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**OBSERVATIONS**

Kidney

Pancreas

Stomach

Unspecified

Uterus

Multiple Organs Nos

Inflammation, Chronic

Atrophy, Focal

Acanthosis

Hyperkeratosis

Leukemia, Monocytic

Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_411

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Renal Lymph Node	Hyperplasia, Reticulum Cell
	Renal Lymph Node	Lymphangiectasis
Mammary gland		Fibroadenoma
Pancreas		Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Spleen		Hematopoiesis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_412

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
		Hyperplasia, Nos
Spleen	Follicles	Atrophy, Nos
		Hemosiderosis
Stomach		Acanthosis
		Edema, Nos
		Hemorrhage
		Hyperkeratosis
		Ulcer, Perforated

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_413

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Cyst, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_414

**TRT#:** 1  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Bone	Sternum	Osteopetrosis
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Alveolar/Bronchiolar Adenoma
		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenocarcinoma, Nos
		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
Preputial gland		Cystic Ducts
		Hyperplasia, Diffuse
Skin	Tail	Squamous Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_415

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney	Tubule	Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos
Lung	Bile Duct	Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Inflammation, Chronic Hyperplasia, Reticulum Cell
Mammary gland	Mediastinal Lymph Node	Pigmentation, Nos Cystic Ducts Fibroadenoma Galactocele Hyperplasia, Diffuse
Ovary		Cyst, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Urinary bladder		Hyperplasia, Papillary

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_416

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Calcification, Nos

Lung

Inflammation, Chronic

Lymph node

Inflammation, Chronic

Mammary gland

Mediastinal Lymph Node

Hyperplasia, Reticulum Cell

Fibroadenoma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_417

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone marrow		Hypoplasia, Nos
Esophagus		Hyperkeratosis
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Fibrosis
	Bile Duct	Hyperplasia, Nos
		Metamorphosis, Fatty
		Necrosis, Focal
		Thrombosis, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Pituitary gland		Adenoma, Nos
		Cyst, Nos
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_418

**TRT#:** 1  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

**OBSERVATIONS**

Eye	Retina	Degeneration, Nos Synechia, Posterior
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Leukocytosis, Nos Inflammation, Chronic
Lung	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma Galactocele
Pituitary gland		Adenoma, Nos
Unspecified	Leg	Fibroma
Uterus		Endometrial Stromal Polyp Hydrometra

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_419

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Eye  
Heart  
Kidney  
Liver  
Lung  
Mammary gland

Cortex Nos  
Retina  
Myocardium Nos

Metamorphosis, Fatty  
Degeneration, Nos  
Inflammation, Chronic Diffuse  
Inflammation, Chronic  
Granuloma, Nos  
Inflammation, Chronic  
Adenocarcinoma, Nos  
Cystic Ducts  
Fibroadenoma  
Islet-Cell Adenoma  
Adenoma, Nos  
Hematopoiesis  
C-Cell Adenoma

Pancreas  
Pituitary gland  
Spleen  
Thyroid

Islets

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_420

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Brain  
Heart  
Intestine Large  
Kidney  
  
Liver  
  
Lung  
Lymph node  
  
Mammary gland  
Pituitary gland  
Spleen

Cerebrum  
Myocardium Nos  
Cecum, Colon  
  
Tubule  
  
Mandibular Lymph Node  
Mesenteric Lymph Node  
Mediastinal Lymph Node

Cortical Adenoma  
Carcinoma, Nos, Invasive  
Inflammation, Chronic Diffuse  
Parasitism  
Inflammation, Chronic  
Pigmentation, Nos  
Granuloma, Nos  
Metamorphosis, Fatty  
Inflammation, Chronic  
Hyperplasia, Lymphoid  
Hyperplasia, Reticulum Cell  
Pigmentation, Nos  
Cystic Ducts  
Carcinoma, Nos  
Hematopoiesis  
Hemosiderosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_421

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
		Granuloma, Nos
	Bile Duct	Hyperplasia, Lymphoid
Lung		Inflammation, Chronic
Lymph node		Hyperplasia, Lymphoid
Mammary gland	Mandibular Lymph Node	Fibroadenoma
Pituitary gland		Cyst, Nos
Skin	Lip Nos	Inflammation, Chronic Focal
Spleen		Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_422

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Liver

Bile Duct

Focal Cellular Change

Lung

Hyperplasia, Nos

Pancreas

Inflammation, Chronic

Pituitary gland

Ectopia

Unspecified

Multiple Organs Nos

Adenoma, Nos

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 1\_423

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Sternum	Osteopetrosis
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Granuloma, Nos Metamorphosis, Fatty
Lung		Inflammation, Chronic Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos Fibroadenoma Galactocele
Ovary		Granulosa-Cell Tumor
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Thyroid		Cyst, Follicular Nos
Uterus		Endometrial Stromal Polyp
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_424

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Brain

Kidney

Cerebrum

Tubule

Liver

Lung

Lymph node

Thyroid

Uterus

Mesenteric Lymph Node

Cervix Uteri

Pheochromocytoma

Inflammation, Chronic Focal

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Focal Cellular Change

Inflammation, Chronic

Pigmentation, Nos

Follicular-Cell Carcinoma

Fibrosis

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 1\_425

**TRT#:** 1

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_551

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

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**OBSERVATIONS**

Kidney

Liver

Pituitary gland

Zymbal gland

Inflammation, Chronic

Focal Cellular Change

Hepatocellular Carcinoma

Hyperplasia, Focal

Carcinoma, Nos

Squamous Cell Papilloma

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_552

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Unspecified

Colon  
Multiple Organs Nos

Adenocarcinoma, Nos  
Adenocarcinoma, Nos, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_553

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Intestine Large

Ascending Colon, Colon

Signet Ring Carcinoma

Liver

Necrosis, Focal

Unspecified

Multiple Organs Nos

Signet Ring Carcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_554

**TRT#:** 2  
**DOSE:** 0

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

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

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**OBSERVATIONS**

Intestine Large

Transverse Colon, Colon

Adenocarcinoma In Adenomatous Polyp

Intestine Small

Jejunum

Mucinous Cystadenocarcinoma

Kidney

Sarcoma, Nos

Liver

Focal Cellular Change

Lung

Neoplastic Nodule

Unspecified

Multiple Organs Nos

Inflammation, Chronic

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_555

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Sarcoma, Nos

Liver

Focal Cellular Change

Metamorphosis, Fatty

Lung

Inflammation, Chronic

Sarcoma, Nos, Metastatic

Thyroid

Hyperplasia, C Cell

Unspecified

Diaphragm Nos

Hernia, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_556

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Esophagus		Hyperkeratosis
Intestine Large	Ascending Colon, Colon	Adenocarcinoma In Adenomatous Polyp
	Cecum, Colon	Mucinous Cystadenocarcinoma
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Spleen		Atrophy, Nos
		Hemosiderosis
Stomach		Inflammation, Chronic Diffuse
		Necrosis, Focal
Thyroid		Follicular-Cell Adenoma
Unspecified	Multiple Organs Nos	Mucinous Cystadenocarcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_557

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Ascending Colon, Colon	Adenocarcinoma In Adenomatous Polyp
Intestine Small	Jejunum	Signet Ring Carcinoma
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Spleen		Hematopoiesis
Stomach		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal
Thyroid		Follicular-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
	Multiple Organs Nos	Signet Ring Carcinoma, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_558

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Heart  
Intestine Large  
Kidney

Cortex Nos  
Myocardium Nos  
Transverse Colon, Colon

Tubule

Liver

Metamorphosis, Fatty  
Inflammation, Chronic Focal  
Adenomatous Polyp, Nos  
Inflammation, Chronic Diffuse  
Pigmentation, Nos  
Focal Cellular Change  
Metamorphosis, Fatty  
Pigmentation, Nos  
Inflammation, Chronic  
Cyst, Parovarian  
Hyperplasia, Focal  
Hyperplasia, C Cell

Lung  
Ovary  
Pituitary gland  
Thyroid

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_559

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Ear		Abscess, Nos
Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Ascending Colon, Colon	Adenomatous Polyp, Nos
Kidney		Tubular-Cell Adenocarcinoma
Liver		Focal Cellular Change
		Hepatocellular Carcinoma
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Zymbal gland		Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH** -

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_560

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Large	Descending, Colon	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Hepatitis, Toxic
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Adenocarcinoma, Nos
		Cystic Ducts
Pituitary gland		Adenoma, Nos
Stomach		Inflammation, Chronic
		Necrosis, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp
		Hydrometra
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_561

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Intestine Large

Ascending Colon, Colon  
Cecum, Colon

Adenomatous Polyp, Nos  
Mucinous Cystadenocarcinoma

Kidney

Calcification, Nos

Liver

Bile Duct

Hyperplasia, Nos  
Metamorphosis, Fatty

Spleen

Necrosis, Focal

Unspecified

Multiple Organs Nos

Thrombosis, Nos

Hematopoiesis

Mucinous Cystadenocarcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_562

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenocarcinoma In Adenomatous Polyp

Liver

Tubule

Inflammation, Chronic

Pigmentation, Nos

Focal Cellular Change

Hepatitis, Toxic

Neoplastic Nodule

Lung

Inflammation, Chronic

Lymph node

Mediastinal Lymph Node

Hyperplasia, Lymphoid

Pituitary gland

Cyst, Nos

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

Uterus

Hydrometra

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_563

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Descending, Colon

Adenomatous Polyp, Nos

Kidney

Transverse Colon, Colon

Adenomatous Polyp, Nos

Liver

Sarcoma, Nos

Stomach

Focal Cellular Change

Zymbal gland

Granuloma, Nos

Acanthosis

Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_564

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Hemorrhage Hyperplasia, Focal
Intestine Large	Transverse Colon, Colon Descending, Colon	Adenocarcinoma In Adenomatous Polyp Adenomatous Polyp, Nos
Kidney		Mixed Tumor, Malignant
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_565

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Liver

Sarcoma, Nos

Lung

Focal Cellular Change

Spleen

Metamorphosis, Fatty

Inflammation, Chronic

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_566

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Descending, Colon

Adenocarcinoma In Adenomatous Polyp

Kidney

Descending, Colon

Adenomatous Polyp, Nos

Liver

Calcification, Nos

Inflammation, Chronic

Mammary gland

Focal Cellular Change

Cystic Ducts

Pituitary gland

Hyperplasia, Nos

Adenoma, Nos

Zymbal gland

Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_567

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Transverse Colon, Colon

Adenomatous Polyp, Nos

Kidney

Cecum, Colon

Signet Ring Carcinoma

Liver

Calcification, Nos

Lung

Focal Cellular Change

Unspecified

Multiple Organs Nos

Inflammation, Chronic

Zymbal gland

Signet Ring Carcinoma, Metastatic

Squamous Cell Papilloma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_568

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Descending, Colon

Adenocarcinoma In Adenomatous Polyp

Descending, Colon

Adenomatous Polyp, Nos

Colon

Hyperplasia, Focal

Kidney

Inflammation, Chronic

Liver

Focal Cellular Change

Metamorphosis, Fatty

Necrosis, Focal

Lung

Neoplastic Nodule

Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_569

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Intestine Large  
Kidney  
Liver  
Pituitary gland  
Spleen  
Unspecified  
Zymbal gland

Ascending Colon, Colon

Multiple Organs Nos

Mucinous Cystadenocarcinoma  
Sarcoma, Nos  
Hepatitis, Toxic  
Adenoma, Nos  
Hematopoiesis  
Mucinous Cystadenocarcinoma, Metastatic  
Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_570

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Eye		Phthisis Bulbi
Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
Intestine Small	Jejunum	Adenocarcinoma, Nos
Kidney		Sarcoma, Nos
Liver		Metamorphosis, Fatty
Unspecified	Multiple Organs Nos	Adenocarcinoma, Nos, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_571

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenomatous Polyp, Nos  
Inflammation, Chronic  
Sarcoma, Nos

Liver

Angiectasis  
Focal Cellular Change

Lung  
Uterus

Endometrium

Leukemia, Monocytic  
Metamorphosis, Fatty  
Inflammation, Chronic  
Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_572

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Liver	Focal Cellular Change
	Metamorphosis, Fatty
	Neoplastic Nodule
Lung	Inflammation, Chronic
Mammary gland	Fibroadenoma
Thyroid	Hyperplasia, C Cell
Zymbal gland	Keratoacanthoma

---

**PRIMARY CAUSE OF DEATH** -

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_573

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Liver

Focal Cellular Change

Lung

Metamorphosis, Fatty

Mammary gland

Inflammation, Chronic

Pituitary gland

Fibroadenoma

Vagina

Adenoma, Nos

Acanthosis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_574

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Intestine Large  
Intestine Small  
Kidney  
Liver

Colon  
Jejunum

Parasitism  
Adenocarcinoma, Nos  
Nephrosis, Hydro  
Fibrosis, Focal  
Focal Cellular Change  
Neoplastic Nodule  
Inflammation, Chronic  
Hyperplasia, Lymphoid  
Hyperplasia, Lymphoid  
Adenocarcinoma, Nos  
Hyperplasia, Nos  
Adenocarcinoma, Nos, Metastatic  
Leukemia, Monocytic

Lung  
Lymph node

Mandibular Lymph Node  
Mediastinal Lymph Node

Mammary gland

Unspecified

Multiple Organs Nos  
Multiple Organs Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_575

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Kidney

Inflammation, Chronic

Tubule

Pigmentation, Nos

Liver

Focal Cellular Change

Granuloma, Nos

Metamorphosis, Fatty

Neoplastic Nodule

Lung

Inflammation, Chronic

Lymph node

Mandibular Lymph Node

Hyperplasia, Lymphoid

Uterus

Pyometra

Zymbal gland

Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_576

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Natural Death

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Lung

Mixed Tumor, Malignant

Metamorphosis, Fatty

Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_577

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenomatous Polyp, Nos  
Calcification, Nos  
Inflammation, Chronic  
Focal Cellular Change  
Necrosis, Focal  
Inflammation, Chronic

Liver

Lung

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_578

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_579

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Eye	Retina Cornea	Degeneration, Nos Inflammation, Chronic Synechia, Anterior
Intestine Large Kidney Liver	Transverse Colon, Colon	Adenomatous Polyp, Nos Mixed Tumor, Malignant Focal Cellular Change Hepatitis, Toxic Metamorphosis, Fatty
Lung		Hyperplasia, Alveolar Epithelium Inflammation, Chronic
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic
Unspecified Uterus	Multiple Organs Nos Endometrium	Leukemia, Monocytic Hyperplasia, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_580

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Natural Death

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Lung

Pancreas

Spleen

Stomach

Unspecified

Abdominal Cavity

Sarcoma, Nos

Focal Cellular Change

Necrosis, Focal

Inflammation, Chronic

Sarcoma, Nos, Invasive

Hematopoiesis

Necrosis, Focal

Sarcoma, Nos, Invasive

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_581

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Intestine Large	Ascending Colon, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Hepatocellular Carcinoma
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Renal Lymph Node	Lymphangiectasis
	Renal Lymph Node	Pigmentation, Nos
Mammary gland		Adenocarcinoma, Nos
Ovary		Cyst, Parovarian
Pancreas		Ectopia
Pituitary gland		Hyperplasia, Focal
Spleen		Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_582

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Kidney

Colon

Adenocarcinoma, Nos  
Inflammation, Chronic  
Mineralization

Tubule

Pigmentation, Nos  
Inflammation, Chronic

Lung  
Lymph node  
Mammary gland  
Pituitary gland  
Thyroid

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell  
Fibroadenoma  
Adenoma, Nos

Unspecified

Multiple Organs Nos

Follicular-Cell Carcinoma

Multiple Organs Nos

Adenocarcinoma, Nos, Metastatic  
Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_583

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large

Ascending Colon, Colon  
Ascending Colon, Colon

Mucinous Cystadenocarcinoma  
Necrosis, Focal

Kidney

Calcification, Nos

Liver

Metamorphosis, Fatty

Lung

Inflammation, Chronic

Pituitary gland

Adenoma, Nos

Stomach

Acanthosis

Hyperkeratosis

Inflammation, Chronic

Necrosis, Focal

Unspecified

Multiple Organs Nos

Mucinous Cystadenocarcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_584

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Intestine Large  
Kidney  
Lung  
Unspecified

Ascending Colon, Colon  
  
Multiple Organs Nos

Signet Ring Carcinoma  
Calcification, Nos  
Inflammation, Chronic  
Signet Ring Carcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_585

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Lung

Pituitary gland

Unspecified

Uterus

Zymbal gland

Multiple Organs Nos

Endometrial Gland

Inflammation, Chronic

Focal Cellular Change

Hepatitis, Toxic

Neoplastic Nodule

Inflammation, Chronic

Hemorrhage

Hyperplasia, Focal

Leukemia, Monocytic

Cyst, Nos

Squamous Cell Papilloma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_586

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Intestine Large	Descending, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Lymph node	Pancreatic Lymph Node	Hemorrhage
Pancreas		Atrophy, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
	Abdominal Cavity	Necrosis, Fat
Uterus		Endometrial Stromal Polyp
	Cervix Uteri	Leiomyosarcoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_587

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Calcification, Nos

Infarct, Nos

Liver

Inflammation, Chronic

Focal Cellular Change

Hepatocellular Carcinoma

Metamorphosis, Fatty

Pituitary gland

Necrosis, Focal

Adenoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_588

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Lung

Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_590

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Kidney		Sarcoma, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Ovary		Cyst, Nos
Pituitary gland		Hyperplasia, Focal
Spleen		Hematopoiesis
Zymbal gland		Squamous Cell Papilloma

---

**PRIMARY CAUSE OF DEATH** -

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_591

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Kidney

Sarcoma, Nos

Liver

Hepatitis, Toxic

Spleen

Hematopoiesis

Stomach

Acanthosis

Necrosis, Focal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_592

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Kidney  
Liver

Ascending Colon, Colon

Mucinous Cystadenocarcinoma  
Sarcoma, Nos  
Angiectasis

Lung  
Lymph node  
Spleen  
Stomach

Mesenteric Lymph Node

Hepatitis, Toxic  
Inflammation, Chronic  
Erythrophagocytosis  
Hematopoiesis  
Acanthosis  
Inflammation, Chronic  
Necrosis, Focal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_593

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Stomach

Unspecified

Multiple Organs Nos

Adenocarcinoma, Nos

Adenocarcinoma, Nos, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_594

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Brain	Cerebrum	Astrocytoma
	Cerebrum	Necrosis, Nos
Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
Intestine Small	Jejunum	Hyperplasia, Epithelial
	Duodenum	Signet Ring Carcinoma
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
Unspecified	Multiple Organs Nos	Signet Ring Carcinoma, Metastatic
Zymbal gland		Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_595

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Kidney		Inflammation, Chronic Sarcoma, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_596

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Transverse Colon, Colon

Adenocarcinoma In Adenomatous Polyp

Liver

Ascending Colon, Colon

Signet Ring Carcinoma

Lung

Granuloma, Nos

Stomach

Inflammation, Chronic

Necrosis, Focal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_597

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney		Inflammation, Chronic
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Stomach		Necrosis, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_598

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Intestine Large  
Kidney  
Liver

Colon

Parasitism  
Inflammation, Chronic  
Focal Cellular Change  
Hepatitis, Toxic  
Hepatocellular Carcinoma

Lung  
Pituitary gland  
Thyroid  
Unspecified  
Zymbal gland

Multiple Organs Nos

Neoplastic Nodule  
Inflammation, Chronic  
Hyperplasia, Focal  
Follicular-Cell Adenoma  
Leukemia, Monocytic  
Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_599

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver  
Lung  
Spleen  
Stomach

Cortex Nos

Necrosis, Nos  
Sarcoma, Nos  
Hepatitis, Toxic  
Inflammation, Chronic  
Hematopoiesis  
Ulcer, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_600

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Lung

Sarcoma, Nos

Focal Cellular Change

Hemorrhage

Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_601

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Medulla

Hyperplasia, Focal  
Inflammation, Chronic  
Focal Cellular Change  
Neoplastic Nodule

Lung  
Preputial gland  
Thyroid  
Unspecified

Inflammation, Chronic  
Carcinoma, Nos  
Cyst, Follicular Nos  
Leukemia, Monocytic

Multiple Organs Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_602

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Adrenal gland

Intestine Large

Kidney

Mammary gland

Pituitary gland

Unspecified

Descending, Colon  
Colon

Multiple Organs Nos

Cortical Adenoma

Adenomatous Polyp, Nos

Signet Ring Carcinoma

Calcification, Nos

Inflammation, Chronic

Cyst, Nos

Angiectasis

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_603

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Ascending Colon, Colon	Adenocarcinoma, Nos
Kidney		Tubular-Cell Adenocarcinoma
Liver		Hepatitis, Toxic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Unspecified	Multiple Organs Nos	Adenocarcinoma, Nos, Metastatic
	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_604

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Kidney		Inflammation, Chronic
Liver		Hepatitis, Toxic
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp
Zymbal gland		Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_605

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Transverse Colon, Colon

Adenocarcinoma In Adenomatous Polyp

Intestine Small

Jejunum

Mucinous Cystadenocarcinoma

Kidney

Mixed Tumor, Malignant

Liver

Focal Cellular Change

Granuloma, Nos

Lung

Metamorphosis, Fatty

Ovary

Inflammation, Chronic

Uterus

Cyst, Parovarian

Endometrial Stromal Polyp

Hydrometra

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_606

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large

Ascending Colon, Colon  
Descending, Colon

Adenocarcinoma, Nos  
Adenomatous Polyp, Nos  
Inflammation, Chronic  
Focal Cellular Change  
Inflammation, Chronic  
Hyperplasia, Focal  
Carcinoma, Nos  
Keratoacanthoma

Kidney

Liver

Lung

Pituitary gland

Zymbal gland

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_607

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Descending, Colon

Adenocarcinoma In Adenomatous Polyp

Descending, Colon

Adenomatous Polyp, Nos

Kidney

Inflammation, Chronic

Liver

Bile Duct

Cyst, Multilocular

Focal Cellular Change

Bile Duct

Granuloma, Nos

Inflammation, Chronic

Neoplastic Nodule

Lung

Inflammation, Chronic

Lymph node

Mandibular Lymph Node

Hemorrhage

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_608

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Ascending Colon, Colon

Adenocarcinoma In Adenomatous Polyp

Kidney

Ascending Colon, Colon

Adenomatous Polyp, Nos

Liver

Calcification, Nos

Inflammation, Chronic

Focal Cellular Change

Lung

Metamorphosis, Fatty

Neoplastic Nodule

Urinary bladder

Inflammation, Chronic

Transitional-Cell Carcinoma

Uterus

Endometrial Stromal Sarcoma

Cervix Uteri

Endometrial Stromal Sarcoma, Invasive

Vagina

Endometrial Stromal Sarcoma, Invasive

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_609

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
		Metamorphosis, Fatty
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Skin	Head Nos	Abscess, Nos
Stomach		Acanthosis
Thyroid		Hyperplasia, C Cell
Uterus		Endometrial Stromal Sarcoma
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_610

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Kidney		Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Thymus		Hemorrhage
Uterus		Endometrial Stromal Sarcoma
	Cervix Uteri	Endometrial Stromal Sarcoma, Invasive

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_611

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney		Tubular-Cell Adenocarcinoma
Liver		Focal Cellular Change
		Neoplastic Nodule
Lung		Inflammation, Chronic
Pancreas		Ectopia
Pituitary gland		Adenoma, Nos
Spleen		Hemorrhage
		Necrosis, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_612

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Cecum, Colon

Adenocarcinoma, Nos

Descending, Colon

Hyperplasia, Epithelial

Kidney

Calcification, Nos

Unspecified

Multiple Organs Nos

Adenocarcinoma, Nos, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_613

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large  
Intestine Small  
Liver

Ascending Colon, Colon  
Jejunum

Adenomatous Polyp, Nos  
Mucinous Cystadenocarcinoma  
Angiectasis  
Metamorphosis, Fatty  
Cyst, Nos  
Hematopoiesis  
Acanthosis  
Inflammation, Chronic  
Mucinous Cystadenocarcinoma, Metastatic

Pituitary gland  
Spleen  
Stomach

Unspecified

Multiple Organs Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_614

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenocarcinoma In Adenomatous Polyp  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos  
Metamorphosis, Fatty  
Necrosis, Focal  
Neoplastic Nodule

Lung  
Lymph node  
Mammary gland  
Spleen

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Fibroadenoma  
Hematopoiesis  
Hemosiderosis  
Carcinoma, Nos

Zymbal gland

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_615

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Bone	Skull	Exostosis
	Sternum	Exostosis
Heart	Myocardium Nos	Fibrosis, Focal
Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
	Descending, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
		Mixed Tumor, Malignant
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
		Leukemia, Monocytic
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Hyperplasia, Focal
Spleen		Hematopoiesis
Thyroid		Hyperplasia, C Cell
Uterus	Cervix Uteri	Fibrosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_616

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Lung

Spleen

Mixed Tumor, Malignant

Focal Cellular Change

Leukocytosis, Nos

Inflammation, Chronic

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_617

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Liver

Cecum, Colon  
Bile Duct

Mucinous Cystadenocarcinoma  
Hyperplasia, Nos  
Necrosis, Focal

Lung  
Unspecified

Multiple Organs Nos

Inflammation, Acute  
Mucinous Cystadenocarcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_618

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenomatous Polyp, Nos  
Fibrosarcoma

Liver  
Lung  
Lymph node  
Ovary

Renal Lymph Node

Inflammation, Chronic  
Focal Cellular Change  
Inflammation, Chronic  
Lymphangiectasis  
Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_619

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
	Descending, Colon	Adenomatous Polyp, Nos
	Cecum, Colon	Inflammation, Chronic Focal
Intestine Small	Duodenum	Mucinous Cystadenocarcinoma
Kidney	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Granuloma, Nos
		Hyperplasia, Nos
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hemorrhage
	Ileocolic Lymph Node	Hyperplasia, Lymphoid
	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Ileocolic Lymph Node	Lymphangiectasis
Mammary gland		Fibroadenoma
Ovary		Cyst, Parovarian
Skin	Eyelid Nos	Fibrosarcoma
Unspecified		Inflammation, Chronic
Zymbal gland		Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_620

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Small  
Kidney

Jejunum

Mucinous Cystadenocarcinoma  
Calcification, Nos  
Mixed Tumor, Malignant  
Focal Cellular Change  
Inflammation, Chronic  
Hyperplasia, Focal

Liver  
Lung  
Pituitary gland

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_621

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Ear	Canal	Hyperkeratosis
Kidney		Calcification, Nos
		Inflammation, Chronic
		Sarcoma, Nos
Thyroid		C-Cell Adenoma
Unspecified	Axilla	Fibrosarcoma
	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_622

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenocarcinoma In Adenomatous Polyp

Calcification, Nos

Sarcoma, Nos

Liver

Focal Cellular Change

Granuloma, Nos

Lung

Inflammation, Chronic

Mammary gland

Fibroadenoma

Ovary

Cyst, Nos

Pituitary gland

Adenoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_623

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Eye

Retina

Cataract

Kidney

Degeneration, Nos

Liver

Inflammation, Chronic

Lung

Metamorphosis, Fatty

Zymbal gland

Inflammation, Chronic

Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_624

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Descending, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
		Granuloma, Nos
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
Pancreas		Atrophy, Focal
Stomach		Acanthosis
Thyroid		Cyst, Follicular Nos

---

**PRIMARY CAUSE OF DEATH** -

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_625

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Liver

Metamorphosis, Fatty

Necrosis, Focal

Lung

Inflammation, Chronic

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

Abdominal Cavity

Necrosis, Fat

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_626

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Lung

Ovary

Pituitary gland

Inflammation, Chronic

Inflammation, Chronic

Cyst, Nos

Adenoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_627

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Natural Death

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Lung

Neoplasm, Malignant, Nos

Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_628

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Esophagus  
Pituitary gland  
Stomach  
Unspecified

Multiple Organs Nos

Hyperkeratosis  
Hyperplasia, Focal  
Signet Ring Carcinoma  
Signet Ring Carcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_629

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Intestine Large	Cecum, Colon	Inflammation, Chronic Focal
	Cecum, Colon	Necrosis, Focal
Intestine Small	Jejunum	Mucinous Cystadenocarcinoma
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Metamorphosis, Fatty
		Neoplastic Nodule
Lung		Inflammation, Chronic
		Pigmentation, Nos
Mammary gland		Fibroadenoma
Spleen		Hemosiderosis
Unspecified	Diaphragm Nos	Hernia, Nos
	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Cervix Uteri	Fibrosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_630

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large

Descending, Colon

Adenomatous Polyp, Nos

Kidney

Transverse Colon, Colon

Adenomatous Polyp, Nos

Liver

Tubule

Inflammation, Chronic

Bile Duct

Pigmentation, Nos

Lymph node

Mesenteric Lymph Node

Cyst, Multilocular

Thyroid

Focal Cellular Change

Metamorphosis, Fatty

Hyperplasia, Reticulum Cell

Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_631

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Diffuse
Brain	Cerebrum	Hydrocephalus, Nos Cataract
Eye	Retina	Degeneration, Nos
	Cornea	Inflammation, Chronic
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic Leukemia, Monocytic Metamorphosis, Fatty Necrosis, Focal Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Pituitary gland		Adenoma, Nos
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_632

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
	Cecum, Colon	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Lymphoid
Pituitary gland		Adenoma, Nos
Unspecified	Abdominal Cavity	Steatitis
Uterus	Endometrium	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_633

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Hepatocellular Carcinoma
		Metamorphosis, Fatty
		Neoplastic Nodule
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Papillary Cystadenoma, Nos
Pancreas		Inflammation, Chronic Focal
Pituitary gland		Adenoma, Nos
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_634

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large  
Intestine Small  
Kidney

Descending, Colon  
Peyers Patch

Adenomatous Polyp, Nos  
Hyperplasia, Lymphoid  
Calcification, Nos  
Inflammation, Chronic

Liver

Bile Duct

Cyst, Nos  
Metamorphosis, Fatty  
Inflammation, Chronic  
Carcinoma, Nos

Lung  
Zymbal gland

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_635

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain	Cerebellum Nos	Gliosis
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Sarcoma, Nos
Liver		Focal Cellular Change
	Bile Duct	Hepatocellular Carcinoma
	Bile Duct	Hyperplasia, Nos
		Inflammation, Chronic
		Necrosis, Focal
		Neoplastic Nodule
		Sarcoma, Nos, Metastatic
Lung		Inflammation, Chronic
Thymus		Cyst, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_636

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Small  
Kidney  
Liver  
Mammary gland  
Unspecified

Jejunum  
  
  
  
Multiple Organs Nos

Signet Ring Carcinoma  
Fibrosarcoma  
Hepatitis, Toxic  
Fibroadenoma  
Signet Ring Carcinoma, Metastatic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_637

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Intestine Small  
Kidney  
Liver

Descending, Colon  
Duodenum

Adenomatous Polyp, Nos  
Adenocarcinoma, Nos  
Inflammation, Chronic  
Focal Cellular Change  
Hepatitis, Toxic  
Necrosis, Focal  
Hyperplasia, Focal  
Acanthosis  
Adenocarcinoma, Nos, Invasive  
Inflammation, Chronic  
Hyperplasia, C Cell  
Adenocarcinoma, Nos, Metastatic  
Leukemia, Monocytic  
Cyst, Nos

Pituitary gland  
Stomach

Thyroid  
Unspecified

Multiple Organs Nos  
Multiple Organs Nos  
Endometrial Gland

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_638

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Leukemia, Monocytic
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic
Zymbal gland		Squamous Cell Papilloma

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_639

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney

Liver

Lung

Ovary

Uterus

Sarcoma, Nos

Hemorrhage

Hepatitis, Toxic

Sarcoma, Nos, Metastatic

Inflammation, Chronic

Cyst, Nos

Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_640

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Adrenal gland  
Intestine Large  
Kidney  
Liver  
Lung  
Stomach

Colon

Metamorphosis, Fatty  
Adenomatous Polyp, Nos  
Inflammation, Chronic  
Hepatitis, Toxic  
Inflammation, Chronic  
Acanthosis  
Hyperkeratosis  
Inflammation, Chronic

Uterus

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_641

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Descending, Colon	Adenomatous Polyp, Nos
Kidney		Calcification, Nos
		Inflammation, Chronic
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
		Granuloma, Nos
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_642

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Kidney  
Liver

Descending, Colon

Adenomatous Polyp, Nos  
Mixed Tumor, Malignant  
Focal Cellular Change  
Metamorphosis, Fatty  
Hyperplasia, Reticulum Cell

Lymph node

Mesenteric Lymph Node

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_643

**TRT#:** 2  
**DOSE:** 0

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

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

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**OBSERVATIONS**

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
		Neoplastic Nodule
		Pigmentation, Nos
Lung		Inflammation, Chronic
		Pigmentation, Nos
Lymph node	Pancreatic Lymph Node	Pigmentation, Nos
Pancreas		Ectopia
Pituitary gland		Adenoma, Nos
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_644

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large

Descending, Colon  
Cecum, Colon

Adenocarcinoma In Adenomatous Polyp  
Adenocarcinoma, Nos

Kidney

Mineralization

Liver

Focal Cellular Change

Lung

Neoplastic Nodule

Inflammation, Chronic

Unspecified

Multiple Organs Nos

Thrombosis, Nos

Adenocarcinoma, Nos, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_645

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Intestine Large  
Kidney  
Liver

Colon

Adenocarcinoma, Nos  
Sarcoma, Nos  
Hepatocellular Carcinoma  
Necrosis, Focal  
Neoplastic Nodule  
Leukemia, Monocytic  
Squamous Cell Papilloma

Unspecified  
Zymbal gland

Multiple Organs Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_646

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Zymbal gland

Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_647

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Bone	Skull	Osteopetrosis
Intestine Large	Ascending Colon, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Fibrosis
		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Thyroid		Follicular-Cell Adenoma
		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_648

**TRT#:** 2

**DOSE:** 0

**SEX:** Female

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Lung

Spleen

Sarcoma, Nos

Inflammation, Chronic

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_649

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Liver		Focal Cellular Change
Lung		Leukemia, Monocytic
Lymph node	Mandibular Lymph Node	Inflammation, Chronic
Spleen		Hyperplasia, Lymphoid
Stomach		Hematopoiesis
Zymbal gland		Acanthosis
		Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_650

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Adrenal gland  
Intestine Large  
Kidney  
Lung  
Spleen  
Thyroid  
  
Uterus  
  
Zymbal gland

Descending, Colon

Sarcoma, Nos, Invasive  
Adenomatous Polyp, Nos  
Sarcoma, Nos  
Inflammation, Chronic  
Hematopoiesis  
Follicular-Cell Adenoma  
Hyperplasia, C Cell  
Endometrial Stromal Polyp  
Hydrometra  
Squamous Cell Papilloma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_651

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenomatous Polyp, Nos  
Inflammation, Chronic  
Sarcoma, Nos

Liver

Focal Cellular Change  
Granuloma, Nos  
Metamorphosis, Fatty  
Neoplastic Nodule

Lung  
Pituitary gland  
Thyroid

Inflammation, Chronic  
Hyperplasia, Focal  
Hyperplasia, C Cell

Unspecified

Multiple Organs Nos  
Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_652

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Intestine Small

Lung

Lymph node

Spleen

Unspecified

Jejunum

Mesentery Nos

Mediastinal Lymph Node

Pancreatic Lymph Node

Abdominal Cavity

Metamorphosis, Fatty

Mucinous Cystadenocarcinoma

Mucinous Cystadenocarcinoma, Metastatic

Inflammation, Chronic

Hyperplasia, Lymphoid

Hyperplasia, Lymphoid

Myelopoiesis

Mucinous Cystadenocarcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_653

**TRT#:** 2  
**DOSE:** 0

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

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

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**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenomatous Polyp, Nos  
Inflammation, Chronic

Liver

Tubule

Pigmentation, Nos  
Hepatitis, Toxic

Ovary

Pigmentation, Nos

Unspecified

Multiple Organs Nos

Cyst, Parovarian

Uterus

Endometrium

Leukemia, Monocytic

Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_654

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
Liver		Hepatitis, Toxic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Pancreatic Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_655

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Kidney  
Liver  
Lung  
Mammary gland  
Thyroid  
Unspecified

Descending, Colon  
  
  
  
  
  
Multiple Organs Nos

Adenomatous Polyp, Nos  
Inflammation, Chronic  
Hepatitis, Toxic  
Inflammation, Chronic  
Hyperplasia, Nos  
Hyperplasia, C Cell  
Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_656

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney

Sarcoma, Nos

Liver

Hepatitis, Toxic

Lung

Inflammation, Chronic

Pituitary gland

Hyperplasia, Focal

Thymus

Hemorrhage

Unspecified

Adipose Tissue

Sarcoma, Nos, Invasive

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_657

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Unspecified

Cecum, Colon  
Multiple Organs Nos

Signet Ring Carcinoma  
Signet Ring Carcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_658

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Intestine Large  
Intestine Small  
Liver

Ascending Colon, Colon  
Jejunum

Adenomatous Polyp, Nos  
Adenocarcinoma, Nos  
Angiectasis  
Metamorphosis, Fatty  
Adenocarcinoma, Nos, Metastatic

Unspecified

Multiple Organs Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_659

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic

Liver

Tubule

Pigmentation, Nos  
Granuloma, Nos  
Hepatocellular Carcinoma

Bile Duct

Hyperplasia, Nos  
Necrosis, Focal  
Neoplastic Nodule  
Pigmentation, Nos  
Inflammation, Chronic  
Endometrial Stromal Polyp  
Squamous Cell Papilloma

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Lung  
Uterus  
Zymbal gland

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_660

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Kidney		Mixed Tumor, Malignant
Liver		Hepatitis, Toxic
Lymph node	Mediastinal Lymph Node	Hemorrhage
Ovary		Mixed Tumor, Metastatic
Spleen		Hematopoiesis
Stomach		Necrosis, Focal
Uterus		Mixed Tumor, Metastatic

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**PRIMARY CAUSE OF DEATH** -

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_661

**TRT#:** 2  
**DOSE:** 0

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

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

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**OBSERVATIONS**

Adrenal gland  
Intestine Large  
Kidney

Descending, Colon

Tubule

Liver  
Lung  
Mammary gland  
Thyroid

Cortical Adenoma  
Adenocarcinoma In Adenomatous Polyp  
Inflammation, Chronic  
Pigmentation, Nos  
Focal Cellular Change  
Inflammation, Chronic  
Fibroadenoma  
C-Cell Adenoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_662

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hemorrhage
	Bile Duct	Hyperplasia, Nos
		Necrosis, Focal
		Neoplastic Nodule
Lung		Carcinoma, Nos, Metastatic
		Hemorrhage
		Inflammation, Chronic
Mammary gland		Fibroadenoma
Pancreas		Inflammation, Chronic Focal
Stomach		Inflammation, Chronic Diffuse
Unspecified	Mediastinum Nos	Inflammation, Chronic
	Multiple Organs Nos	Leukemia, Monocytic
	Abdominal Cavity	Steatitis
Zymbal gland		Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_663

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large  
Kidney  
Liver

Colon

Parasitism  
Fibrosarcoma  
Focal Cellular Change

Bile Duct

Hyperplasia, Nos  
Metamorphosis, Fatty  
Inflammation, Chronic  
Endometrial Stromal Polyp

Lung  
Uterus

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_664

**TRT#:** 2  
**DOSE:** 0

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

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

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**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenomatous Polyp, Nos  
Inflammation, Chronic

Liver

Tubule  
Bile Duct

Pigmentation, Nos  
Fibrosis  
Hepatitis, Toxic

Lung

Pancreas

Bile Duct

Hyperplasia, Nos  
Metamorphosis, Fatty  
Inflammation, Chronic  
Atrophy, Nos

Unspecified

Multiple Organs Nos

Ectopia  
Inflammation, Chronic  
Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_665

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
	Descending, Colon	Adenomatous Polyp, Nos
	Transverse Colon, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
	Pancreatic Lymph Node	Pigmentation, Nos
Skin		Abscess, Nos
Spleen		Hemosiderosis
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_666

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney		Calcification, Nos
		Inflammation, Chronic
Lung		Inflammation, Chronic
Ovary		Cyst, Parovarian
Spleen		Hematopoiesis
Stomach		Acanthosis
Unspecified	Multiple Organs Nos	Endometrial Stromal Sarcoma, Metastatic
Uterus		Endometrial Stromal Sarcoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_667

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Intestine Large  
Kidney  
Unspecified

Ascending Colon, Colon  
Multiple Organs Nos

Signet Ring Carcinoma  
Calcification, Nos  
Signet Ring Carcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_668

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Calcification, Nos

Liver

Inflammation, Chronic

Lung

Focal Cellular Change

Stomach

Necrosis, Focal

Unspecified

Multiple Organs Nos

Inflammation, Chronic

Adenocarcinoma, Nos

Adenocarcinoma, Nos, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_669

**TRT#:** 2  
**DOSE:** 0

**SEX:** Female  
**DISP:** Natural Death

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

**OBSERVATIONS**

Adrenal gland  
Kidney  
Liver

Medulla

Hyperplasia, Focal  
Inflammation, Chronic  
Hepatitis, Toxic  
Necrosis, Focal

Lung  
Mammary gland  
Pancreas  
Pituitary gland

Inflammation, Chronic  
Cystic Ducts  
Atrophy, Focal  
Cyst, Nos

Thyroid  
Unspecified  
Uterus

Multiple Organs Nos

Hyperplasia, C Cell  
Leukemia, Monocytic  
Hydrometra

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_670

**TRT#:** 2  
**DOSE:** 0

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

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

---

**OBSERVATIONS**

Intestine Large

Descending, Colon  
Ascending Colon, Colon

Adenomatous Polyp, Nos  
Mucinous Adenocarcinoma

Kidney

Calcification, Nos  
Inflammation, Chronic

Liver

Bile Duct

Focal Cellular Change

Unspecified

Multiple Organs Nos

Hyperplasia, Nos  
Neoplastic Nodule  
Mucinous Adenocarcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 2\_671

**TRT#:** 2  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Intestine Large	Descending, Colon	Mucinous Cystadenocarcinoma
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
		Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
		Necrosis, Focal
		Neoplastic Nodule
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Hyperplasia, Nos
Pituitary gland		Angiectasis
Spleen	Capsule	Hemorrhage
Thyroid		Cyst, Follicular Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
	Abdominal Cavity	Necrosis, Fat
Uterus	Endometrium	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_672

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large  
Kidney

Ascending Colon, Colon

Adenomatous Polyp, Nos  
Calcification, Nos  
Inflammation, Chronic  
Focal Cellular Change  
Inflammation, Chronic  
Acanthosis  
Carcinoma, Nos

Liver

Lung

Stomach

Zymbal gland

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_673

**TRT#:** 2  
**DOSE:** 0

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

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

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**OBSERVATIONS**

Eye		Cataract
	Retina	Degeneration, Nos
Intestine Large	Descending, Colon	Adenomatous Polyp, Nos
Kidney		Fibrosarcoma
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Zymbal gland		Carcinoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

---

**ANIMAL ID:** 2\_674

**TRT#:** 2  
**DOSE:** 0

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

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

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**OBSERVATIONS**

Adrenal gland  
Kidney

Medulla

Hyperplasia, Focal  
Inflammation, Chronic  
Mineralization

Liver

Hepatitis, Toxic  
Necrosis, Focal

Lung

Lymph node

Mesenteric Lymph Node

Mesenteric Lymph Node

Pigmentation, Nos  
Inflammation, Chronic

Spleen

Uterus

Hemorrhage  
Hyperplasia, Reticulum Cell  
Hematopoiesis  
Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 2\_675

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Kidney

Transverse Colon, Colon

Adenocarcinoma In Adenomatous Polyp

Liver

Tubule

Inflammation, Chronic

Pigmentation, Nos

Lung

Focal Cellular Change

Hepatocellular Carcinoma

Ovary

Inflammation, Chronic

Cyst, Parovarian

Pituitary gland

Adenoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 3\_001

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Nos Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change Hemorrhage Necrosis, Focal
Lung		Congestion, Nos Inflammation, Chronic
Mammary gland		Fibroadenoma
Pituitary gland		Cyst, Nos
Spleen		Hemosiderosis
Unspecified	Abdominal Cavity	Steatitis
Uterus		Hydrometra

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_002

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Mesenteric Lymph Node Pancreatic Lymph Node	Hyperplasia, Reticulum Cell Pigmentation, Nos Pigmentation, Nos
Mammary gland		Cystic Ducts
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 3\_003

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Small  
Kidney

Mesentery Nos

Inflammation, Chronic Focal  
Inflammation, Chronic

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Metamorphosis, Fatty

Lung

Lymph node

Mandibular Lymph Node

Inflammation, Chronic  
Hyperplasia, Lymphoid

Pituitary gland

Adenoma, Nos

Spleen

Hemosiderosis

Stomach

Inflammation, Chronic Diffuse

Thyroid

Ulcer, Perforated

Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_004

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
		Necrosis, Focal
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Ileocolic Lymph Node	Atrophy, Nos
	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Ileocolic Lymph Node	Lymphangiectasis
Mammary gland		Cystic Ducts
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Ulcer, Perforated
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 3\_005

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
		Hepatitis, Toxic
Lung		Inflammation, Chronic
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 3\_006

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Eye

Cortex Nos

Metamorphosis, Fatty

Heart

Retina

Cataract

Kidney

Myocardium Nos

Degeneration, Nos

Liver

Inflammation, Chronic Focal

Lung

Inflammation, Chronic

Lymph node

Mineralization

Mammary gland

Mesenteric Lymph Node

Focal Cellular Change

Inflammation, Chronic

Hyperplasia, Lymphoid

Cystic Ducts

Fibroadenoma

Galactocele

Thyroid

C-Cell Adenoma

Cyst, Follicular Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_007

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
		Pheochromocytoma
	Cortex Nos	Pigmentation, Nos
Eye	Retina	Degeneration, Nos
Intestine Small	Duodenum	Mucinous Cystadenocarcinoma
Kidney		Mineralization
Liver		Granuloma, Nos
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Hyperplasia, Alveolar Epithelium
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Preputial gland		Abscess, Nos
		Carcinoma, Nos
		Hyperkeratosis
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Inflammation, Chronic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:07

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_008

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Granuloma, Nos Metamorphosis, Fatty Necrosis, Focal Neoplastic Nodule Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Mesenteric Lymph Node Mediastinal Lymph Node	Hemorrhage Hyperplasia, Reticulum Cell Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse
Thyroid		Ulcer, Perforated
Unspecified	Back Abdominal Cavity	C-Cell Adenoma Fibroma Necrosis, Fat
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 3\_009

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
		Papillary Cystadenoma, Nos
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Thyroid		C-Cell Adenoma
		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_00A

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Hyperplasia, Focal
Eye	Cortex Nos Retina	Metamorphosis, Fatty Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Hemorrhage Metamorphosis, Fatty Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Adenocarcinoma, Nos Cystic Ducts
Pancreas	Islets	Islet-Cell Carcinoma
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:07  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_010

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma
	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Brain	Cerebrum	Carcinoma, Nos, Invasive
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Necrosis, Focal
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Carcinoma, Nos
Thyroid		Cyst, Follicular Nos
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 3\_011

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Focal Cellular Change
Liver		Inflammation, Chronic
	Bile Duct	Inflammation, Chronic
Lung		Atrophy, Focal
Pancreas		

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 3\_012

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

**ANIMAL ID:** 3\_013

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Lymphoma, Histiocytic-Malignant Type
Liver		Inflammation, Chronic
Lung		Cystic Ducts
Mammary gland		Islet-Cell Adenoma
Pancreas	Islets	Carcinoma, Nos
Preputial gland		Hematopoiesis
Spleen		Necrosis, Focal
		Cyst, Follicular Nos
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:07

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_014

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung	Alveoli	Histiocytosis
		Inflammation, Chronic
		Inflammation, Interstitial
Lymph node	Mesenteric Lymph Node	Erythrophagocytosis
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Pancreas	Islets	Islet-Cell Adenoma
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Spleen	Follicles	Atrophy, Nos
		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 3\_015

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Degeneration, Nos
Kidney		Inflammation, Chronic
Lung		Inflammation, Chronic
Pituitary gland		Adenoma, Nos
		Angiectasis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 3\_016

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Liver

Focal Cellular Change

Lung

Inflammation, Chronic

Unspecified

Flank

Fibroma

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:07

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

**Lab:** NA

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**ANIMAL ID:** 3\_017

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebellum Nos	Carcinoma, Nos, Invasive
Kidney		Inflammation, Chronic
Lung		Inflammation, Chronic
Pituitary gland		Carcinoma, Nos
Thyroid		Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_018

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Lung		Inflammation, Chronic
Uterus	Cervix Uteri	Inflammation, Chronic
	Cervix Uteri	Necrosis, Focal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_019

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Granuloma, Nos Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma Hyperplasia, Nos
Pituitary gland		Adenoma, Nos Angiectasis
Spleen		Hematopoiesis
Thyroid		C-Cell Adenoma
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_020

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
		Hyperplasia, Nos
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Spleen		Necrosis, Focal
Stomach		Necrosis, Focal
Tongue		Acanthosis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_021

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Eye

Retina

Cataract

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Inflammation, Chronic Focal

Lung

Inflammation, Chronic

Pituitary gland

Hyperplasia, Focal

Preputial gland

Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_022

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Cataract
	Cornea	Degeneration, Nos
		Hemorrhage
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Synechia, Posterior
		Inflammation, Chronic Diffuse
		Inflammation, Chronic
		Mineralization
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
		Hyperplasia, Nos
Spleen		Hematopoiesis
Unspecified	Flank	Fibroma
Uterus	Cervix Uteri	Acanthosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_023

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma
Oral mucosa	Palate	Foreign Body, Nos
	Palate	Inflammation, Chronic Focal
	Palate	Necrosis, Focal
Pituitary gland		Cyst, Nos
Stomach		Acanthosis Hyperkeratosis
Thyroid		C-Cell Carcinoma Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_024

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Pituitary gland		Cyst, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_025

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Pituitary gland		Adenoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_026

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Kidney		Mineralization
Liver		Granuloma, Nos
		Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Ovary		Thecoma
Parathyroid gland		Hyperplasia, Nos
Spleen		Hematopoiesis
Stomach		Acanthosis
		Necrosis, Focal
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Inflammation, Chronic
Urinary bladder		Acanthosis
		Calculus, Unknown Gross Or Micro
		Pigmentation, Nos
		Transitional-Cell Carcinoma
Zymbal gland		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_027

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla Cortex Nos	Hyperplasia, Focal Hyperplasia, Focal Metamorphosis, Fatty
Bone	Sternum	Osteopetrosis
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Metamorphosis, Fatty Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Spleen		Fibrosis, Focal Hematopoiesis Hemosiderosis
Thyroid		C-Cell Adenoma
Uterus		Follicular-Cell Adenoma Endometrial Stromal Polyp Hydrometra

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_028

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_029

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Eye		Cataract
	Retina	Degeneration, Nos
		Hemorrhage
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney	Cortex	Cyst, Nos
		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Alveolar/Bronchiolar Carcinoma
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Lymphangiectasis
Mammary gland		Inflammation, Diffuse
Preputial gland		Cystic Ducts
		Hyperplasia, Diffuse
Spleen		Hemosiderosis
Stomach		Acanthosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal
Thyroid		Cyst, Follicular Nos
		Hyperplasia, C Cell
Uterus	Endometrium	Cyst, Nos
		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_030

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Accidentally Killed

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Inflammation, Chronic

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_031

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla Cortex Nos	Hyperplasia, Focal Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Cataract Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node Mesenteric Lymph Node Mesenteric Lymph Node	Hyperplasia, Lymphoid Hyperplasia, Lymphoid Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma Galactocele
Pituitary gland		Adenoma, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_032

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye		Cataract
	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Angiectasis
		Focal Cellular Change
		Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Pituitary gland		Adenoma, Nos
		Cyst, Nos
Spleen		Hemosiderosis
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_033

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Nos
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Mineralization
Liver	Bile Duct	Pigmentation, Nos
Lung		Hyperplasia, Nos
Lymph node		Inflammation, Chronic
Mammary gland	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
		Cystic Ducts
		Fibroadenoma
		Galactocele
Pancreas	Islets	Islet-Cell Carcinoma
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_034

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Brain	Cerebrum	Granular-Cell Tumor, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
Liver		Focal Cellular Change
		Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Metamorphosis, Fatty
Lung		Hemorrhage
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Adenocarcinoma, Nos
		Cystic Ducts
		Fibroadenoma
Pituitary gland		Hyperplasia, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_035

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Eye

Cortex Nos

Metamorphosis, Fatty  
Cataract

Heart  
Kidney

Retina  
Myocardium Nos

Degeneration, Nos  
Inflammation, Chronic Diffuse  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos

Lung  
Lymph node

Mesenteric Lymph Node  
Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Pigmentation, Nos

Parathyroid gland  
Pituitary gland  
Thyroid

Hyperplasia, Nos  
Adenoma, Nos  
C-Cell Carcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_036

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye		Cataract
	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Hematopoiesis
Lung		Hyperplasia, Alveolar Epithelium
		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Erythrophagocytosis
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Adenocarcinoma, Nos
		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Angiectasis
		Cyst, Hemorrhagic
Spleen		Hematopoiesis
Thyroid		C-Cell Carcinoma
		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_037

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Intestine Small	Duodenum	Hemorrhage
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Kupffer-Cell Sarcoma
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_038

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Fibroadenoma
		Galactocele
		Hyperplasia, Diffuse
		Papillary Adenocarcinoma
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_039

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Cataract
Heart	Myocardium Nos	Degeneration, Nos
Kidney		Inflammation, Chronic Focal Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Granuloma, Nos Inflammation, Chronic Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Adenocarcinoma, Nos Fibroadenoma Galactocele
Pancreas	Acinus	Hyperplasia, Focal
Pituitary gland		Carcinoma, Nos Cyst, Hemorrhagic
Spleen		Hematopoiesis Hemosiderosis
Thyroid		Follicular-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_040

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Metaplasia, Osseous
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Hepatitis, Toxic
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Hyperplasia, Nos
Oral mucosa	Palate	Squamous Cell Carcinoma
Spleen		Fibrosis, Diffuse
Stomach		Hyperkeratosis
		Inflammation, Chronic Diffuse
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Endometrium	Cyst, Nos
		Fibrosis
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_041

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
		Galactocele
Pituitary gland		Adenoma, Nos
		Angiectasis
Stomach		Acanthosis
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_042

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Tubule

Inflammation, Chronic Focal

Liver

Pigmentation, Nos

Lung

Focal Cellular Change

Lymph node

Granuloma, Nos

Mammary gland

Mesenteric Lymph Node

Inflammation, Chronic

Thyroid

Atrophy, Nos

Fibroadenoma

C-Cell Adenoma

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_043

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Intestine Large  
Kidney

Cortex Nos  
Cecum, Colon

Metamorphosis, Fatty  
Parasitism  
Inflammation, Chronic  
Mineralization

Liver

Congestion, Nos  
Focal Cellular Change

Lung

Congestion, Nos  
Inflammation, Chronic

Lymph node

Mesenteric Lymph Node  
Mesenteric Lymph Node

Hyperplasia, Reticulum Cell  
Pigmentation, Nos

Mammary gland

Fibroadenoma

Uterus

Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_044

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
		Necrosis, Focal
Lung		Inflammation, Chronic
Mammary gland		Hyperplasia, Nos
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Cervix Uteri	Fibrosis

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_045

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos
Ovary		Cyst, Nos
Pituitary gland		Adenoma, Nos
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_046

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Tubule

Lung  
Thyroid  
Unspecified

Pigmentation, Nos  
Inflammation, Chronic  
Hyperplasia, C Cell  
Leukemia, Monocytic

Multiple Organs Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_047

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
	Cornea	Inflammation, Chronic Focal
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Ovary		Cyst, Nos
Pancreas	Islets	Islet-Cell Adenoma
Pituitary gland		Cyst, Nos
Skin	Ear	Fibrosarcoma
Stomach		Acanthosis
Thyroid		Follicular-Cell Adenoma
Unspecified	Flank	Fibroma
	Multiple Organs Nos	Leukemia, Monocytic
	Back	Sarcoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_048

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Lung  
Pituitary gland  
Uterus

Inflammation, Chronic  
Hemorrhage  
Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_049

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla Cortex Nos	Hyperplasia, Focal Hyperplasia, Focal Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Degeneration, Nos
Kidney	Tubule Tubule	Mineralization Pigmentation, Nos
Liver		Focal Cellular Change Leukemia, Monocytic Necrosis, Focal
Lymph node	Mediastinal Lymph Node Mediastinal Lymph Node Mesenteric Lymph Node	Erythrophagocytosis Hemosiderosis Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Pancreas		Mixed Tumor, Benign
Pituitary gland		Adenoma, Nos Cyst, Nos
Spleen		Hematopoiesis Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Necrosis, Focal
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Inflammation, Chronic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_050

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
		Necrosis, Focal
		Neoplastic Nodule
Lung		Inflammation, Chronic
		Liposarcoma, Metastatic
Mammary gland		Cystic Ducts
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal
Thyroid		Cyst, Follicular Nos

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_051

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Bone	Rib	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
		Hyperplasia, Nos
Pancreas		Atrophy, Focal
Unspecified	Multiple Organs Nos	Liposarcoma, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_052

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Ovary		Cyst, Parovarian
Thyroid		C-Cell Carcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_053

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma
	Cortex Nos	Metamorphosis, Fatty
Bone marrow		Hypoplasia, Nos
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney	Perirenal Tissue	Hematopoiesis
		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Hepatitis, Toxic
		Necrosis, Focal
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_054

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cystic Ducts
	Bile Duct	Hyperplasia, Nos
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos
		Cystic Ducts
		Fibroadenoma
		Hyperplasia, Nos
Pancreas	Islets	Islet-Cell Carcinoma
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal
Unspecified	Back	Fibrosarcoma
	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_055

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla Cortex Nos	Hyperplasia, Focal Metamorphosis, Fatty Pheochromocytoma
Heart	Myocardium Nos Atrium	Inflammation, Chronic Focal Thrombosis, Nos
Kidney	Tubule	Inflammation, Chronic Mineralization Pigmentation, Nos
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node Mesenteric Lymph Node Mediastinal Lymph Node Mesenteric Lymph Node	Hyperplasia, Lymphoid Hyperplasia, Reticulum Cell Pigmentation, Nos Pigmentation, Nos
Mammary gland		Adenoma, Nos Hyperplasia, Nos
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_056

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization Mixed Tumor, Malignant
	Tubule	Pigmentation, Nos Focal Cellular Change
Liver		Inflammation, Chronic
Lung		Hemorrhage
Lymph node	Mesenteric Lymph Node	Cystic Ducts
Mammary gland		Atrophy, Focal
Pancreas		Adenoma, Nos
Pituitary gland		Hemosiderosis
Spleen		

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_057

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Sternum	Osteopetrosis
Eye		Cataract
	Retina	Degeneration, Nos
		Hemorrhage
Heart	Cornea	Inflammation, Chronic Focal
Kidney	Myocardium Nos	Inflammation, Chronic Focal
		Inflammation, Chronic
	Tubule	Pigmentation, Nos
		Sarcoma, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
Lung		Hyperplasia, Alveolar Epithelium
		Inflammation, Chronic
Mammary gland		Fibroadenoma
Pituitary gland		Angiectasis
Spleen		Hematopoiesis
Thyroid		C-Cell Carcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_058

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Angiectasis
		Focal Cellular Change
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hemorrhage
	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos
		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_059

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Eye	Nasolacrimal Duct Nasolacrimal Duct	Hyperkeratosis Inflammation, Acute
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Hepatitis, Toxic Necrosis, Focal Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Cervical Lymph Node Nos Mandibular Lymph Node Mediastinal Lymph Node	Hyperplasia, Lymphoid Hyperplasia, Lymphoid Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma
Nasal cavity	Turbinates Nos	Inflammation, Chronic Focal
Ovary		Granulosa-Cell Tumor
Pituitary gland		Adenoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Cervix Uteri	Inflammation, Chronic Focal
Zymbal gland		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_060

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Eye  
Kidney

Cortex Nos  
Retina

Angiectasis  
Degeneration, Nos  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos  
Hemorrhage

Lung  
Lymph node  
Mammary gland

Mediastinal Lymph Node

Metamorphosis, Fatty  
Inflammation, Chronic  
Pigmentation, Nos

Pituitary gland

Cystic Ducts  
Fibroadenoma  
Adenoma, Nos  
Angiectasis

Preputial gland

Cyst, Hemorrhagic  
Cystic Ducts  
Hyperkeratosis

Stomach

Acanthosis  
Hyperkeratosis

Thyroid

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_061

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Tubule

Liver  
Lung  
Lymph node

Pigmentation, Nos  
Hepatitis, Toxic  
Inflammation, Chronic  
Hyperplasia, Lymphoid  
Pigmentation, Nos

Mammary gland

Cystic Ducts  
Hyperplasia, Nos  
Cyst, Parovarian

Ovary  
Pituitary gland  
Stomach

Adenoma, Nos  
Acanthosis  
Hyperkeratosis  
Inflammation, Chronic Diffuse  
Necrosis, Diffuse  
Leukemia, Monocytic

Unspecified

Multiple Organs Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_062

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Harderian gland	Harderian Gland	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
Skin	Lip Nos	Cyst, Epidermal Inclusion
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_063

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Myocardium Nos

Tubule

Liver

Lung

Mammary gland

Pituitary gland

Salivary gland

Skin

Spleen

Stomach

Back

Pheochromocytoma

Inflammation, Chronic

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Focal Cellular Change

Metamorphosis, Fatty

Inflammation, Chronic

Hyperplasia, Diffuse

Angiectasis

Fibrosis, Focal

Osteosarcoma

Hemosiderosis

Acanthosis

Inflammation, Chronic Focal

Necrosis, Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_064

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Intestine Large	Cecum, Colon	Inflammation, Chronic Focal
	Cecum, Colon	Necrosis, Focal
Intestine Small	Ileum	Inflammation, Chronic Focal
	Ileum	Necrosis, Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Angiectasis
		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Lymphangiectasis
	Mediastinal Lymph Node	Pigmentation, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_065

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Bone	Skull	Osteopetrosis
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Ileocolic Lymph Node	Lymphangiectasis
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma Galactocele
Pituitary gland		Adenoma, Nos
Skin	Lip Nos	Inflammation, Chronic Focal
Spleen		Hemosiderosis Hyperplasia, Reticulum Cell
Unspecified	Flank	Fibroma
	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_066

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Liver

Lung

Lymph node

Spleen

Thyroid

Tubule

Mesenteric Lymph Node

Mediastinal Lymph Node

Pheochromocytoma, Malignant

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Focal Cellular Change

Granuloma, Nos

Inflammation, Chronic

Hyperplasia, Reticulum Cell

Pigmentation, Nos

Hemosiderosis

Follicular-Cell Adenoma

Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_067

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pancreas		Inflammation, Chronic Focal
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse Necrosis, Focal
Thyroid		C-Cell Carcinoma
Unspecified	Abdominal Wall Nos	Endometrial Stromal Sarcoma, Invasive
Uterus		Endometrial Stromal Sarcoma Endometrial Stromal Sarcoma, Invasive Fibrosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_068

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Atrium	Thrombosis, Nos
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Leukemia, Monocytic Necrosis, Focal Pigmentation, Nos
Lung		Hemorrhage Hyperplasia, Alveolar Epithelium Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Mesenteric Lymph Node Mesenteric Lymph Node	Atrophy, Nos Hyperplasia, Reticulum Cell Inflammation, Chronic
Mammary gland		Cystic Ducts Fibroadenoma
Pituitary gland		Angiectasis Pigmentation, Nos
Spleen	Follicles	Atrophy, Nos Hemosiderosis
Thyroid		Hyperplasia, C Cell
Unspecified	Mediastinum Nos	Inflammation, Chronic Focal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_069

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Inflammation, Chronic

Thyroid

Hyperplasia, C Cell

Uterus

Endometrial Stromal Polyp

Endometrial Stromal Sarcoma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_070

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Eye	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Necrosis, Focal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_071

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenocarcinoma, Nos Cystic Ducts Fibroadenoma
Pituitary gland		Adenoma, Nos Angiectasis
Spleen		Hematopoiesis
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_072

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Eye

Cortex Nos

Metamorphosis, Fatty

Heart

Retina

Degeneration, Nos

Kidney

Myocardium Nos

Inflammation, Chronic Focal

Liver

Inflammation, Chronic

Lung

Mineralization

Mammary gland

Focal Cellular Change

Pituitary gland

Inflammation, Chronic

Spleen

Fibroadenoma

Stomach

Angiectasis

Hemosiderosis

Acanthosis

Inflammation, Chronic Diffuse

Thyroid

Necrosis, Focal

Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_073

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Adenocarcinoma, Nos
		Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Cyst, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_074

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Pancreas		Ectopia
Pituitary gland		Adenoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_075

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Metamorphosis, Fatty Necrosis, Focal Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Mediastinal Lymph Node	Hyperplasia, Reticulum Cell Pigmentation, Nos
Mammary gland		Cystic Ducts
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Thyroid		C-Cell Adenoma C-Cell Carcinoma
Unspecified	Multiple Organs Nos Hip Multiple Organs Nos	Leukemia, Monocytic Sarcoma, Nos Sarcoma, Nos, Metastatic
Vagina		Inflammation, Acute

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_076

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Brain	Cerebrum	Astrocytoma
	Cerebellum Nos	Astrocytoma, Invasive
	Medulla Oblongata Nos	Astrocytoma, Invasive
Kidney	Tubule	Inflammation, Chronic
		Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Ovary		Cyst, Parovarian
Stomach		Acanthosis
		Hyperkeratosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_077

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Kidney	Cortex Nos	Metamorphosis, Fatty Inflammation, Chronic Mineralization
Lung	Tubule Alveoli	Pigmentation, Nos Histiocytosis Inflammation, Chronic
Mammary gland		Cystic Ducts Fibroadenoma
Pituitary gland		Adenoma, Nos Angiectasis
Thyroid		C-Cell Adenoma Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Myelomonocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_078

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic  
Mineralization

Lung

Inflammation, Chronic

Pancreas

Ectopia

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_079

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Cervical Lymph Node Nos	Hemorrhage
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Angiectasis
Spleen		Hemosiderosis
Unspecified	Abdominal Cavity	Necrosis, Fat
Uterus	Cervix Uteri	Acanthosis
	Cervix Uteri	Cyst, Nos
	Cervix Uteri	Hyperkeratosis
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_080

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Intestine Small  
Kidney

Mesentery Nos

Inflammation, Chronic Focal  
Inflammation, Chronic  
Mineralization

Tubule

Pigmentation, Nos  
Inflammation, Chronic

Lung  
Lymph node  
Mammary gland

Pancreatic Lymph Node

Hyperplasia, Reticulum Cell  
Cystic Ducts  
Fibroadenoma  
Galactocele  
Hyperplasia, Nos

Pituitary gland  
Stomach

Adenoma, Nos  
Acanthosis  
Hyperkeratosis

Unspecified  
Zymbal gland

Multiple Organs Nos

Inflammation, Chronic Diffuse  
Leukemia, Monocytic  
Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_081

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Metamorphosis, Fatty Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
Pituitary gland		Adenoma, Nos
Skin	Lip Nos	Acanthosis
	Lip Nos	Hyperkeratosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse Ulcer, Perforated

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_082

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma
	Medulla	Hyperplasia, Focal
Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Pancreas	Islets	Islet-Cell Carcinoma
Pituitary gland		Adenoma, Nos
Skin	Plantar Skin Of Foot And Toe	Basal-Cell Tumor
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Diffuse

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_083

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Cortex Nos

Metamorphosis, Fatty

Intestine Large

Myocardium Nos

Fibrosis, Focal

Kidney

Cecum, Colon

Inflammation, Chronic

Inflammation, Chronic

Mineralization

Tubule

Pigmentation, Nos

Lung

Inflammation, Chronic

Ovary

Cyst, Parovarian

Spleen

Hemosiderosis

Stomach

Acanthosis

Hyperkeratosis

Inflammation, Chronic Focal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_084

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Skull	Osteopetrosis
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Metamorphosis, Fatty
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts Fibroadenoma Hyperplasia, Nos
Pancreas		Atrophy, Focal
Spleen		Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Focal Necrosis, Focal
Thyroid		Ulcer, Perforated
Unspecified	Back	C-Cell Carcinoma Lipoma
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_085

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Hyperplasia, Focal  
Inflammation, Chronic Diffuse  
Inflammation, Chronic  
Mineralization

Liver  
Lung  
Lymph node

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Inflammation, Chronic

Mammary gland

Mesenteric Lymph Node  
Mesenteric Lymph Node

Hyperplasia, Reticulum Cell  
Pigmentation, Nos  
Adenocarcinoma, Nos  
Cystic Ducts  
Fibroadenoma  
Hyperplasia, Nos  
Atrophy, Focal

Salivary gland

Parotid Gland Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_086

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Angiectasis Granuloma, Nos Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Spleen		Hematopoiesis Hemosiderosis
Stomach		Acanthosis Inflammation, Chronic Focal Ulcer, Perforated
Thyroid		Cyst, Follicular Nos
Unspecified	Abdominal Cavity	Necrosis, Fat
Zymbal gland		Squamous Cell Papilloma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_087

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Myocardium Nos

Tubule

Cortical Adenoma

Inflammation, Chronic Focal

Cytoplasmic Vacuolization

Inflammation, Chronic

Mineralization

Tubule

Pigmentation, Nos

Metamorphosis, Fatty

Pigmentation, Nos

Liver

Lung

Lymph node

Mammary gland

Mesenteric Lymph Node

Inflammation, Chronic

Hyperplasia, Reticulum Cell

Cyst, Nos

Fibroadenoma

Galactocele

Oral mucosa

Palate

Squamous Cell Papilloma

Ovary

Cyst, Follicular Nos

Skin

Keratoacanthoma

Spleen

Hematopoiesis

Hemosiderosis

Stomach

Cyst, Nos

Thyroid

Follicular-Cell Adenoma

Uterus

Hydrometra

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_088

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma Hyperplasia, Nos
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Preputial gland		Keratoacanthoma
Thyroid		C-Cell Carcinoma
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_089

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Hyperplasia, Nos  
Inflammation, Chronic Diffuse  
Inflammation, Chronic  
Mineralization

Liver  
Lung  
Lymph node  
Mammary gland  
Pancreas  
Pituitary gland

Tubule  
  
Mesenteric Lymph Node

Pigmentation, Nos  
Hepatitis, Toxic  
Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Cystic Ducts  
Atrophy, Diffuse  
Cyst, Nos  
Pigmentation, Nos  
Leukemia, Monocytic

Unspecified

Multiple Organs Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_090

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Hyperplasia, Focal
Heart	Cortex Nos Myocardium Nos	Metamorphosis, Fatty Inflammation, Chronic Focal
Intestine Small	Mesentery Nos	Inflammation, Acute/Chronic
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule Bile Duct	Pigmentation, Nos Focal Cellular Change Inflammation, Chronic Metamorphosis, Fatty
Lung		Inflammation, Chronic Inflammation, Interstitial
Lymph node	Mesenteric Lymph Node Mesenteric Lymph Node	Erythrophagocytosis Hyperplasia, Reticulum Cell
Parathyroid gland		Hyperplasia, Nos
Spleen		Hematopoiesis Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse Necrosis, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Axilla	Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_091

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Bone marrow		Hypoplasia, Nos
Intestine Large	Colon	Hyperplasia, Epithelial
Kidney	Tubule	Metamorphosis, Fatty
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos
		Fibroadenoma
		Galactocele
Pituitary gland		Adenoma, Nos
Spleen	Follicles	Atrophy, Nos
		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Necrosis, Focal
Thyroid		Ulcer, Perforated
		C-Cell Carcinoma
		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Inflammation, Chronic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_092

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Pheochromocytoma

Heart

Myocardium Nos

Inflammation, Chronic Diffuse

Kidney

Inflammation, Chronic

Liver

Focal Cellular Change

Metamorphosis, Fatty

Lung

Inflammation, Chronic

Mammary gland

Cystic Ducts

Fibroadenoma

Hyperplasia, Diffuse

Ovary

Cyst, Nos

Spleen

Hematopoiesis

Hemosiderosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

ANIMAL ID: 3_093	TRT#: 3 DOSE: 10000 PPM	SEX: Female DISP: Moribund Sacrifice	DAY ON TEST: HISTO:
<b>OBSERVATIONS</b>			
Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma	
Intestine Small	Mesentery Nos	Mesothelioma, Malignant	
Kidney	Tubule	Mineralization Pigmentation, Nos Focal Cellular Change Granuloma, Nos Metamorphosis, Fatty Necrosis, Focal	
Liver			
Lymph node	Mesenteric Lymph Node Mediastinal Lymph Node Mesenteric Lymph Node	Hyperplasia, Reticulum Cell Pigmentation, Nos Pigmentation, Nos	
Mammary gland		Fibroadenoma	
Pancreas	Islets	Atrophy, Focal Islet-Cell Adenoma	
Pituitary gland		Hyperplasia, Focal	
Skin	Lip Nos	Basal-Cell Tumor	
Spleen		Hematopoiesis	
Stomach		Acanthosis Necrosis, Focal	
Thyroid		Hyperplasia, C Cell	
Unspecified	Multiple Organs Nos Multiple Organs Nos	Inflammation, Chronic Mesothelioma, Invasive	
Uterus		Hydrometra	
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_094

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Bone	Rib	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos Necrosis, Focal Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Adenoma, Nos Fibroadenoma Galactocele
		Hyperplasia, Diffuse
Pituitary gland		Angiectasis Hyperplasia, Focal
Spleen		Hemosiderosis
Stomach		Necrosis, Diffuse Ulcer, Perforated
Thyroid		C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_095

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
Pituitary gland		Adenoma, Nos
Thyroid		Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_096

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
Liver		Focal Cellular Change
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
		Galactocele
Ovary		Cyst, Parovarian
Pituitary gland		Adenoma, Nos
Preputial gland		Cystic Ducts
		Hyperplasia, Nos
Stomach		Acanthosis
		Hyperkeratosis
	Mucosa	Hyperplasia, Focal
		Inflammation, Chronic Focal
		Ulcer, Perforated

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_097

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Cervical Lymph Node Nos	Hyperplasia, Lymphoid
	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Pituitary gland		Angiectasis
Salivary gland		Inflammation, Chronic Focal
Thyroid		C-Cell Adenoma
Tongue		Acanthosis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_098

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Peritoneum		Fibrosarcoma
Pituitary gland		Adenoma, Nos
		Angiectasis

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_099

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Myocardium Nos

Tubule

Liver

Lung

Lymph node

Mammary gland

Thyroid

Mesenteric Lymph Node

Pheochromocytoma

Inflammation, Chronic Focal

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Focal Cellular Change

Inflammation, Chronic

Hyperplasia, Reticulum Cell

Fibroadenoma

C-Cell Adenoma

Cyst, Follicular Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_100

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Cecum, Colon	Inflammation, Acute Diffuse
Kidney		Inflammation, Chronic
		Mineralization
Liver		Necrosis, Focal
Lung		Congestion, Nos
		Inflammation, Chronic
Mammary gland		Adenocarcinoma, Nos
		Hyperplasia, Diffuse
Pancreas		Inflammation, Acute Diffuse
Pituitary gland		Adenoma, Nos
Preputial gland		Carcinoma, Nos
Skeletal muscle	Intercostal Muscle	Inflammation, Chronic
Spleen	Follicles	Atrophy, Nos
		Hemosiderosis
Stomach		Acanthosis
		Necrosis, Focal
Thyroid		C-Cell Adenoma
		Hyperplasia, C Cell
Unspecified	Diaphragm Nos	Inflammation, Acute Diffuse
Uterus	Endometrium	Carcinoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_101

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Angiectasis

Hyperplasia, Focal

Cortex Nos

Metamorphosis, Fatty

Bone

Sternum

Osteopetrosis

Heart

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Inflammation, Chronic

Mineralization

Tubule

Pigmentation, Nos

Liver

Granuloma, Nos

Lung

Inflammation, Chronic

Lymph node

Mandibular Lymph Node

Hyperplasia, Lymphoid

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Pancreatic Lymph Node

Pigmentation, Nos

Mammary gland

Fibroadenoma

Ovary

Papillary Cystadenoma, Nos

Thyroid

Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_102

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty Necrosis, Focal
Lung		Inflammation, Chronic
Pancreas		Atrophy, Focal
Spleen		Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse
Thyroid		Necrosis, Focal C-Cell Adenoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_103

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Thyroid		C-Cell Carcinoma
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_104

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

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**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
Lymph node	Tubule	Pigmentation, Nos
Mammary gland	Ileocolic Lymph Node	Lymphangiectasis Cystic Ducts Fibroadenoma Hyperplasia, Diffuse
Stomach		Necrosis, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_105

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Rib	Degeneration, Nos
Heart	Endocardium Nos	Sarcoma, Nos
Kidney		Mineralization
	Tubule	Pigmentation, Nos
Liver		Degeneration, Nos
		Fibrosis, Multifocal
		Metamorphosis, Fatty
		Necrosis, Focal
Lymph node	Cervical Lymph Node Nos	C-Cell Carcinoma, Metastatic
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
		Hyperplasia, Diffuse
Pituitary gland		Adenoma, Nos
		Angiectasis
Spleen		Atrophy, Nos
		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Ulcer, Perforated
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Inflammation, Chronic
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_106

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
Liver		Granuloma, Nos
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hemorrhage
	Renal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Renal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Skin	Face	Cyst, Epidermal Inclusion
Spleen		Hematopoiesis
		Pigmentation, Nos
Stomach		Acanthosis
		Inflammation, Chronic Diffuse
		Ulcer, Perforated

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_107

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain	Cerebrum	Glioma, Nos
Kidney		Inflammation, Chronic
		Mineralization
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Pituitary gland		Angiectasis
Spleen		Hemosiderosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

**ANIMAL ID:** 3\_108

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Esophagus		Hyperkeratosis
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Necrosis, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_109

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
Liver	Tubule	Pigmentation, Nos
		Necrosis, Focal
Lung		Pigmentation, Nos
Lymph node	Mediastinal Lymph Node	Inflammation, Chronic
	Pancreatic Lymph Node	Hemosiderosis
Mammary gland		Pigmentation, Nos
Pituitary gland		Fibroadenoma
Spleen		Adenoma, Nos
Stomach		Hemosiderosis
		Acanthosis
		Inflammation, Chronic Diffuse
Thyroid		Necrosis, Focal
		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_110

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Bone

Skull

Osteosarcoma

Heart

Myocardium Nos

Fibrosis, Diffuse

Kidney

Inflammation, Chronic

Lung

Osteosarcoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

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

**Lab:** NA

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**ANIMAL ID:** 3\_111

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Inflammation, Chronic

Uterus

Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_112

**TRT#:** 3  
**DOSE:** 10000 PPM

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

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla Cortex Nos	Hyperplasia, Focal Hyperplasia, Focal Metamorphosis, Fatty
Eye	Retina	Cataract Degeneration, Nos Hemorrhage Synechia, Posterior
Heart Kidney	Myocardium Nos	Inflammation, Chronic Diffuse Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Inflammation, Chronic
Lung Lymph node Mammary gland Parathyroid gland Pituitary gland Spleen Thyroid	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell Fibroadenoma Hyperplasia, Nos Adenoma, Nos Hematopoiesis C-Cell Carcinoma

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

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

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_113

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebrum	Necrosis, Focal
Eye	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Mammary gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic
		Necrosis, Focal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_114

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Brain	Cerebellum Nos	Hemorrhage
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
Liver		Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland		Carcinoma, Nos
Preputial gland		Cystic Ducts
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_115

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Brain	Cerebrum	Carcinoma, Nos, Invasive
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mandibular Lymph Node	Pigmentation, Nos
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Carcinoma, Nos
Spleen		Hemosiderosis
Thyroid		C-Cell Adenoma
Uterus	Endometrium	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_116

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Inflammation, Chronic

Mammary gland

Fibroadenoma

Pituitary gland

Adenoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_117

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Inflammation, Chronic
Lung		Cystic Ducts
Mammary gland		Fibroadenoma
Pancreas		Atrophy, Focal Ectopia
Pituitary gland		Cyst, Nos Hyperplasia, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_118

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Angiectasis
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Fibrosis, Diffuse
		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
	Bile Duct	Inflammation, Chronic
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Ovary		Cyst, Nos
Spleen		Hematopoiesis
		Hemosiderosis
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Endometrium	Cyst, Nos
		Hydrometra

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_119

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma
Blood vessel	Aorta Nos	Nonchromaffin Paraganglioma
Eye	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Angiectasis
		Focal Cellular Change
		Pigmentation, Nos
Lung		Congestion, Nos
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Adenocarcinoma, Nos
		Adenoma, Nos
		Cystic Ducts
		Fibroadenoma
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Spleen		Hemosiderosis
Tongue		Squamous Cell Papilloma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_120

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Parathyroid gland		Hyperplasia, Nos
Stomach		Hyperplasia, Nos
		Acanthosis
Thyroid		Inflammation, Chronic Diffuse
		C-Cell Adenoma
Unspecified	Neck	Hyperplasia, C Cell
	Multiple Organs Nos	Fibrosarcoma
	Abdominal Cavity	Leukemia, Monocytic
Uterus		Necrosis, Fat
		Endometrial Stromal Polyp
		Hydrometra

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_121

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Esophagus		Parasitism
Eye		Cataract
	Retina	Degeneration, Nos
		Hemorrhage
Kidney		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Hyperplasia, Alveolar Epithelium
Lymph node	Mesenteric Lymph Node	Erythrophagocytosis
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Angiectasis
Preputial gland		Cystic Ducts
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Acute Focal
		Inflammation, Chronic Diffuse
		Ulcer, Perforated
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Inflammation, Chronic

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_122

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebrum	Hemorrhage
	Cerebrum	Necrosis, Focal
Liver		Metamorphosis, Fatty
Mammary gland		Adenoma, Nos
Pituitary gland		Adenoma, Nos
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_123

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Ovary		Cyst, Parovarian
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Ulcer, Perforated
Thyroid		Cyst, Follicular Nos

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_124

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Eye	Retina	Degeneration, Nos
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Lung		Inflammation, Chronic
		Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
		Hemosiderosis
Stomach	Muscularis	Degeneration, Nos
		Inflammation, Chronic Diffuse
		Ulcer, Perforated
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_125

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Congestion, Nos
	Mediastinal Lymph Node	Pigmentation, Nos
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Adenocarcinoma, Nos Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis Inflammation, Chronic Diffuse Necrosis, Focal
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_126

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma
Blood vessel	Coronary Artery Nos	Mineralization
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Mineralization
Kidney		Atrophy, Nos
		Hemorrhage
		Inflammation, Chronic
		Mineralization
		Nephrosis, Hydro
Lung		Inflammation, Chronic
Mammary gland		Adenocarcinoma, Nos
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
		Hemosiderosis
Stomach		Mineralization
Unspecified	Multiple Organs Nos	Carcinoma, Nos, Invasive
Ureter		Dilatation, Nos
		Hemorrhage
Urinary bladder		Hyperplasia, Epithelial
		Inflammation, Chronic Focal
Uterus		Carcinoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_127

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney	Cortex	Cyst, Nos
		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Inflammation, Chronic
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
		Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Pituitary gland		Adenoma, Nos
Spleen		Fibrosis, Focal
Thyroid		Follicular-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_128

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Eye		Cataract
	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Necrosis, Focal
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Adenocarcinoma, Nos
		Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_129

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Leukemia, Monocytic Metamorphosis, Fatty
Lung		Congestion, Nos Hemorrhage
Lymph node	Mandibular Lymph Node	Inflammation, Chronic
	Mesenteric Lymph Node	Hemorrhage
Pituitary gland		Hyperplasia, Reticulum Cell
Preputial gland		Adenoma, Nos Carcinoma, Nos Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_130

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Accidentally Killed

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Mineralization
Lung		Congestion, Nos
		Hemorrhage
Ovary		Inflammation, Chronic
		Cyst, Follicular Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 3\_131

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Accidentally Killed

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Mineralization
Lung	Bronchiole	Foreign Body, Nos
		Hemorrhage
		Inflammation, Chronic
Pancreas		Ectopia

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_132

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Accidentally Killed

**HISTO:**

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**OBSERVATIONS**

Kidney

Lung

Stomach

Mineralization

Congestion, Nos

Hemorrhage

Inflammation, Chronic

Necrosis, Focal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_133

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Bone	Rib	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver		Granuloma, Nos Metamorphosis, Fatty Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Cystic Ducts Fibroadenoma
Ovary		Cyst, Nos
Pancreas		Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Stomach		Necrosis, Focal
Uterus		Papillary Adenocarcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_134

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Angiectasis
	Cortex Nos	Hyperplasia, Focal
Eye	Retina	Metamorphosis, Fatty
Heart	Myocardium Nos	Degeneration, Nos
Intestine Large	Cecum, Colon	Inflammation, Chronic Focal
Kidney		Parasitism
		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Adenoma, Nos
		Cystic Ducts
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Skin		Inflammation, Chronic Focal
		Necrosis, Focal
Spleen		Fibrosis, Focal
		Hemosiderosis
Stomach		Inflammation, Chronic Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_135

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Diffuse
Liver		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Preputial gland		Carcinoma, Nos
Spleen		Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_136

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell Adenocarcinoma, Nos Cystic Ducts
Pancreas		Fibroadenoma Atrophy, Focal Ectopia
Pituitary gland	Islets	Hyperplasia, Focal Adenoma, Nos Hyperplasia, Focal Pigmentation, Nos
Preputial gland		Carcinoma, Nos
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_137

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Brain	Cerebrum	Carcinoma, Nos, Invasive
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Lung		Congestion, Nos
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Ovary		Granulosa-Cell Tumor
Pituitary gland		Carcinoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Necrosis, Focal
		Ulcer, Perforated

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_138

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Angiectasis Focal Cellular Change Granuloma, Nos
Liver	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic Leukemia, Monocytic Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenocarcinoma, Nos Cystic Ducts Fibroadenoma Galactocele Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Axilla	Fibrosarcoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_139

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Focal Cellular Change
Liver		Inflammation, Chronic
Lung		Hyperplasia, Reticulum Cell
Lymph node	Mesenteric Lymph Node	Fibroadenoma
Mammary gland		Atrophy, Focal
Pancreas		Adenoma, Nos
Pituitary gland		Hematopoiesis
Spleen		Hyperplasia, C Cell
Thyroid		Transitional-Cell Carcinoma
Urinary bladder		Endometrial Stromal Polyp
Uterus		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_140

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Liver

Focal Cellular Change

Mammary gland

Adenocarcinoma, Nos

Spleen

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_141

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Lung	Inflammation, Chronic
Uterus	Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_142

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla Cortex Nos	Cortical Adenoma Hyperplasia, Focal Metamorphosis, Fatty Hypoplasia, Nos
Bone marrow		Degeneration, Nos
Eye	Retina	Inflammation, Chronic Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Mesentery Nos	Inflammation, Chronic Mineralization
Kidney		Necrosis, Focal Inflammation, Chronic
Liver		Erythrophagocytosis
Lung	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Lymph node	Mesenteric Lymph Node	Fibroadenoma Galactocele Hyperplasia, Nos
Mammary gland		Atrophy, Nos Hemosiderosis
Spleen	Follicles	Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse
Stomach		Ulcer, Perforated
Thyroid		Cyst, Follicular Nos Follicular-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_143

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Kidney

Liver

Lung

Spleen

Stomach

Unspecified

Tubule

Multiple Organs Nos

Axilla

Cortical Adenoma

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Focal Cellular Change

Inflammation, Chronic

Hematopoiesis

Acanthosis

Hyperkeratosis

Inflammation, Chronic Diffuse

Necrosis, Focal

Leukemia, Monocytic

Neurofibrosarcoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_144

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Heart

Cortex Nos

Metamorphosis, Fatty

Kidney

Myocardium Nos

Inflammation, Chronic Diffuse

Inflammation, Chronic

Mineralization

Lung

Tubule

Pigmentation, Nos

Lymph node

Inflammation, Chronic

Mammary gland

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Pituitary gland

Mediastinal Lymph Node

Pigmentation, Nos

Thyroid

Fibroadenoma

Hyperplasia, Focal

Unspecified

Multiple Organs Nos

Hyperplasia, C Cell

Zymbal gland

Leukemia, Monocytic

Cystic Ducts

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_145

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma Galactocele
Pituitary gland		Carcinoma, Nos
Stomach		Acanthosis Inflammation, Chronic Diffuse Necrosis, Focal
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Hydrometra
	Endometrium	Hyperplasia, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_146

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization Mixed Tumor, Benign
	Tubule	Pigmentation, Nos Focal Cellular Change
Liver		Inflammation, Chronic
Lung		Hyperplasia, Lymphoid
Lymph node	Mandibular Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Cystic Ducts Fibroadenoma
Mammary gland		Islet-Cell Carcinoma
Pancreas		Inflammation, Chronic Focal
Stomach		Necrosis, Focal
Thyroid		Hyperplasia, C Cell
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_147

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Kidney

Cecum, Colon

Inflammation, Chronic Diffuse  
Inflammation, Chronic  
Mineralization

Tubule

Pigmentation, Nos  
Inflammation, Chronic  
Cystic Ducts

Lung  
Mammary gland  
Pancreas  
Unspecified

Islets

Islet-Cell Adenoma  
Leukemia, Monocytic

Multiple Organs Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_148

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Metamorphosis, Fatty Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis Hyperkeratosis

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 3\_149

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
Pituitary gland		Cyst, Nos
Skin	Flank	Basal-Cell Tumor
Spleen		Hematopoiesis
Thyroid		C-Cell Carcinoma
		Follicular-Cell Adenoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_150

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Cyst, Nos  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Granuloma, Nos

Lung

Lymph node

Bile Duct

Inflammation, Chronic  
Pigmentation, Nos  
Inflammation, Chronic

Mammary gland

Pituitary gland

Thyroid

Uterus

Mandibular Lymph Node

Mesenteric Lymph Node

Mesenteric Lymph Node

Hemorrhage  
Hyperplasia, Reticulum Cell  
Pigmentation, Nos  
Cystic Ducts  
Adenoma, Nos  
Hyperplasia, C Cell  
Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_151

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Congestion, Nos Pheochromocytoma
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Leukocytosis, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Mesenteric Lymph Node	Hyperplasia, Reticulum Cell Pigmentation, Nos
Mammary gland		Fibroadenoma
Pancreas	Islets	Islet-Cell Adenoma
Pituitary gland		Adenoma, Nos
Thymus		Adenocarcinoma, Nos
Unspecified	Flank	Neurofibroma
Uterus	Cervix Uteri Cervix Uteri	Acanthosis Cyst, Nos
	Cervix Uteri	Hydrometra Hyperkeratosis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_152

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic  
Mineralization

Liver

Inflammation, Chronic  
Metamorphosis, Fatty

Pituitary gland

Adenoma, Nos

Spleen

Hemosiderosis

Thyroid

C-Cell Carcinoma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_153

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Leukocytosis, Nos Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Mediastinal Lymph Node	Hyperplasia, Reticulum Cell Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Adenoma, Nos Cyst, Nos
Spleen		Hemosiderosis
Thyroid		C-Cell Carcinoma Cyst, Follicular Nos
Urinary bladder		Transitional-Cell Papilloma
Uterus	Endometrium	Cyst, Nos Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_154

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Tubule

Liver

Lung  
Mammary gland

Spleen  
Stomach

Thyroid  
Uterus

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization  
Pigmentation, Nos  
Focal Cellular Change  
Necrosis, Focal  
Inflammation, Chronic  
Cystic Ducts  
Fibroadenoma  
Hyperplasia, Nos  
Hematopoiesis  
Acanthosis  
Hyperkeratosis  
Necrosis, Focal  
Follicular-Cell Adenoma  
Inflammation, Chronic Focal  
Pigmentation, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_155

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
		Mineralization
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
		Inflammation, Interstitial
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Angiectasis
		Cyst, Hemorrhagic
Preputial gland		Sarcoma, Nos, Invasive
Skin	Nose	Squamous Cell Papilloma
Spleen		Hematopoiesis
		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Ulcer, Perforated
Unspecified	Pelvis	Sarcoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_156

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cyst, Nos
Pancreas	Islets	Islet-Cell Adenoma
Pituitary gland		Angiectasis
Spleen		Hematopoiesis Hemosiderosis
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_157

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma, Malignant
Bone marrow		Hypoplasia, Nos
Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Descending, Colon	Lipoma
Intestine Small	Jejunum	Adenoma, Nos
Kidney		Inflammation, Chronic Mineralization
Liver		Focal Cellular Change Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Pancreatic Lymph Node	Atrophy, Nos
	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Spleen		Hematopoiesis Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Focal
Thyroid		Necrosis, Focal C-Cell Adenoma

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_158

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Blood vessel	Aorta Nos	Mineralization
Heart	Myocardium Nos	Inflammation, Chronic Focal
	Myocardium Nos	Mineralization
Kidney		Inflammation, Chronic
		Mineralization
Liver		Angiectasis
		Focal Cellular Change
		Granuloma, Nos
		Necrosis, Focal
		Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
		Hyperplasia, Diffuse
Parathyroid gland		Hyperplasia, Nos
Spleen		Hematopoiesis
Stomach	Muscularis	Degeneration, Nos
	Fundus	Hyperplasia, Diffuse
		Mineralization
Thyroid		C-Cell Carcinoma
		Cyst, Follicular Nos
		Follicular-Cell Adenoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_159

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Bone	Skull	Osteopetrosis
Brain	Cerebellum Nos	Hemorrhage
	Cerebrum	Hemorrhage
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Necrosis, Focal
Intestine Small	Peyers Patch	Hyperplasia, Lymphoid
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Angiectasis
Spleen	Follicles	Atrophy, Nos
		Hemosiderosis
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_160

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
Mammary gland		Cystic Ducts
Pancreas		Atrophy, Diffuse
		Ectopia
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 3\_161

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
Thymus		Cyst, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_162

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Necrosis, Focal
Lung		Inflammation, Chronic
Mammary gland		Adenocarcinoma, Nos
		Cystic Ducts
		Fibroadenoma
		Galactocele
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp
Zymbal gland		Hyperplasia, Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_163

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
Liver	Tubule	Pigmentation, Nos
		Granuloma, Nos
Lung		Pigmentation, Nos
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Inflammation, Interstitial
	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Pigmentation, Nos
		Fibroadenoma
		Galactocele
Parathyroid gland		Hyperplasia, Diffuse
Spleen		Hyperplasia, Nos
Zymbal gland		Hemosiderosis
		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_164

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
	Anterior Chamber	Empyema
		Hemorrhage
	Cornea	Inflammation, Necrotizing
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Hyperplasia, Diffuse
Nerve, peripheral	Trigeminal Nerve Nos	Squamous Cell Carcinoma, Metastatic
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Ulcer, Perforated
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_165

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Metamorphosis, Fatty  
Inflammation, Chronic Focal  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos  
Metamorphosis, Fatty  
Necrosis, Focal  
Pigmentation, Nos

Preputial gland  
Spleen  
Stomach

Cystic Ducts  
Fibrosis, Multifocal  
Acanthosis  
Hyperkeratosis  
Inflammation, Chronic Diffuse

Unspecified  
Zymbal gland

Multiple Organs Nos

Ulcer, Perforated  
Leukemia, Monocytic  
Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_166

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Esophagus		Hyperkeratosis
Eye	Retina	Degeneration, Nos
Kidney		Mineralization
Liver		Granuloma, Nos
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Granuloma, Nos
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Oral mucosa		Squamous Cell Carcinoma
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Necrosis, Focal
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Inflammation, Chronic
	Multiple Organs Nos	Pigmentation, Nos
Zymbal gland		Cystic Ducts
		Hyperplasia, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_167

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Small	Jejunum	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
		Mineralization
Liver	Tubule	Pigmentation, Nos
		Focal Cellular Change
		Hepatitis, Toxic
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenocarcinoma, Nos
		Cystic Ducts
		Galactocele
		Hyperplasia, Diffuse
Pancreas		Atrophy, Focal
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp
	Endometrium	Hyperplasia, Papillary
Zymbal gland		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_168

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Ulcer, Perforated
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_169

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Angiectasis Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Angiectasis Focal Cellular Change Granuloma, Nos Pigmentation, Nos
Lung	Bronchus	Bronchiectasis Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Ileocolic Lymph Node	Hyperplasia, Reticulum Cell Lymphangiectasis
Mammary gland		Adenocarcinoma, Nos
Pancreas	Acinus	Hyperplasia, Focal
Pituitary gland		Angiectasis
Spleen		Hemosiderosis
Thyroid		C-Cell Carcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_170

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Metamorphosis, Fatty  
Inflammation, Chronic Diffuse  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Hepatitis, Toxic

Lung  
Lymph node

Mandibular Lymph Node  
Mediastinal Lymph Node

Inflammation, Chronic  
Hyperplasia, Lymphoid  
Hyperplasia, Reticulum Cell

Mammary gland

Cystic Ducts  
Fibroadenoma

Pituitary gland  
Thyroid

Adenoma, Nos  
Hyperplasia, C Cell

Unspecified

Multiple Organs Nos  
Nose

Leukemia, Monocytic  
Sarcoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_171

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Liver

Focal Cellular Change

Lung

Inflammation, Chronic

Unspecified

Axilla

Fibroma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_172

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
Liver		Granuloma, Nos Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Mediastinal Lymph Node	Hyperplasia, Reticulum Cell Pigmentation, Nos
Mammary gland		Cystic Ducts Fibroadenoma Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Thyroid		Hyperplasia, C Cell
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_173

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Rib	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Granuloma, Nos Metamorphosis, Fatty Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts Hyperplasia, Diffuse
Pancreas		Ectopia
Pituitary gland		Adenoma, Nos
Stomach		Inflammation, Chronic Diffuse
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Endometrium	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_174

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Medulla

Hyperplasia, Focal  
Inflammation, Chronic  
Mineralization

Tubule

Pigmentation, Nos  
Inflammation, Chronic  
Ectopia

Lung  
Pancreas  
Pituitary gland  
Thymus

Adenoma, Nos  
Hyperplasia, Epithelial

Thyroid  
Unspecified  
Uterus

Multiple Organs Nos

Hyperplasia, C Cell  
Leukemia, Monocytic  
Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_175

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Cortex Nos	Metamorphosis, Fatty Pigmentation, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver		Focal Cellular Change Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma Hyperplasia, Nos
Spleen	Follicles	Atrophy, Nos Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse Ulcer, Perforated

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_926

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Angiectasis
		Focal Cellular Change
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
		Angiectasis
Skin	Lip Nos	Hyperkeratosis
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Endometrium	Papillary Adenoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_927

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic

Liver

Congestion, Nos

Lung

Metamorphosis, Fatty

Congestion, Nos

Mammary gland

Inflammation, Chronic

Cystic Ducts

Hyperplasia, Nos

Pituitary gland

Adenoma, Nos

Spleen

Hemosiderosis

Stomach

Hyperkeratosis

Inflammation, Chronic Focal

Ulcer, Perforated

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_928

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye		Cataract
	Retina	Degeneration, Nos
	Cornea	Inflammation, Chronic Diffuse
	Crystalline Lens	Rupture
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
Liver		Angiectasis
		Focal Cellular Change
		Metamorphosis, Fatty
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Lymphangiectasis
Pancreas		Atrophy, Focal
		Ectopia
Pituitary gland		Adenoma, Nos
		Angiectasis
Skin	Thigh	Acanthosis
	Thigh	Hyperkeratosis
Spleen		Hemosiderosis
Stomach		Inflammation, Chronic Diffuse
		Necrosis, Focal
Thyroid		C-Cell Adenoma
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_929

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Metamorphosis, Fatty
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Preputial gland		Carcinoma, Nos
Skin	Tail	Hyperkeratosis
Stomach		Acanthosis Hyperkeratosis
Uterus		Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_930

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Brain	Cerebellum Nos	Hemorrhage
Eye	Retina	Degeneration, Nos
		Hemorrhage
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
Liver		Congestion, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Fibroadenoma
		Galactocele
		Hyperplasia, Diffuse
Ovary		Cyst, Nos
Pituitary gland		Adenoma, Nos
Thyroid		Hyperplasia, C Cell
Zymbal gland		Squamous Cell Papilloma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_931

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Spleen		Hemosiderosis
Uterus	Cervix Uteri	Abscess, Nos
		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_932

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Eye

Heart

Kidney

Liver

Lung

Lymph node

Mammary gland

Spleen

Unspecified

Uterus

Retina

Myocardium Nos

Tubule

Mesenteric Lymph Node

Diaphragm Nos

Cortical Adenoma

Cataract

Degeneration, Nos

Inflammation, Chronic Focal

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Angiectasis

Focal Cellular Change

Granuloma, Nos

Inflammation, Chronic

Hyperplasia, Reticulum Cell

Cystic Ducts

Fibroadenoma

Hematopoiesis

Hernia, Nos

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_933

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Nos
	Cortex Nos	Metamorphosis, Fatty
Eye		Phthisis Bulbi
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
Liver	Tubule	Pigmentation, Nos
		Focal Cellular Change
		Granuloma, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Cyst, Nos
Skin		Keratoacanthoma
Unspecified	Back	Fibrosarcoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_934

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Pancreatic Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Renal Lymph Node	Lymphangiectasis
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pancreas		Ectopia
Pituitary gland		Hyperplasia, Focal
Stomach		Squamous Cell Carcinoma
Unspecified	Multiple Organs Nos	Squamous Cell Carcinoma, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_935

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Eye

Cortex Nos

Metamorphosis, Fatty  
Cataract

Heart  
Kidney

Retina  
Myocardium Nos

Degeneration, Nos  
Inflammation, Chronic Focal  
Inflammation, Chronic  
Mineralization

Lung  
Mammary gland  
Pituitary gland  
Stomach

Inflammation, Chronic  
Fibroadenoma  
Adenoma, Nos  
Acanthosis  
Hyperkeratosis

Unspecified

Multiple Organs Nos

Inflammation, Chronic Focal  
Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_936

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain	Cerebrum	Carcinoma, Nos, Invasive
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Pituitary gland		Carcinoma, Nos
Spleen		Hematopoiesis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Ulcer, Perforated

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_937

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Cortex Nos	Hemorrhage Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node Mediastinal Lymph Node	Abscess, Nos Pigmentation, Nos
Skin	Foot And Toe Nos	Squamous Cell Papilloma
Stomach	Submucosa	Edema, Nos
Thyroid		Follicular-Cell Adenoma Hyperplasia, C Cell
Unspecified	Adipose Tissue Multiple Organs Nos	Hemorrhage Leukemia, Monocytic
Uterus		Hydrometra

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_938

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic

Liver  
Lung

Tubule

Pigmentation, Nos  
Focal Cellular Change

Lymph node

Mandibular Lymph Node

Inflammation, Chronic

Mesenteric Lymph Node

Hyperplasia, Lymphoid

Mediastinal Lymph Node

Hyperplasia, Reticulum Cell

Mesenteric Lymph Node

Pigmentation, Nos

Mammary gland

Pigmentation, Nos

Fibroadenoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_939

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cystic Ducts Focal Cellular Change Granuloma, Nos
	Bile Duct	Hyperplasia, Focal Leukocytosis, Nos Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Adenocarcinoma, Nos, Metastatic
	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Adenocarcinoma, Nos Cystic Ducts Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis Hyperkeratosis
Tongue		Acanthosis Hyperkeratosis
Unspecified	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_940

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Cortex Nos	Hyperplasia, Focal Metamorphosis, Fatty Pheochromocytoma
Eye	Retina Cornea	Cataract Degeneration, Nos Inflammation, Chronic Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Mesentery Nos	Leiomyosarcoma, Invasive
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Leukocytosis, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node Mediastinal Lymph Node	Hyperplasia, Lymphoid Pigmentation, Nos
Mammary gland		Fibroadenoma
Preputial gland		Carcinoma, Nos
Skin		Abscess, Nos
Stomach		Leiomyosarcoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_941

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Eye

Kidney

Liver

Lung

Lymph node

Mammary gland

Pituitary gland

Spleen

Unspecified

Retina

Mesenteric Lymph Node

Multiple Organs Nos

Cortical Adenoma

Degeneration, Nos

Inflammation, Chronic

Mineralization

Focal Cellular Change

Neoplastic Nodule

Pigmentation, Nos

Inflammation, Chronic

Hyperplasia, Reticulum Cell

Cystic Ducts

Fibroadenoma

Galactocele

Angiectasis

Fibrosis, Focal

Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_942

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Rib	Degeneration, Nos
Eye		Cataract
	Retina	Degeneration, Nos
Kidney		Hemorrhage
		Mineralization
Liver	Tubule	Pigmentation, Nos
		Focal Cellular Change
		Mitotic Alteration
Lymph node	Mediastinal Lymph Node	Erythrophagocytosis
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Adenoma, Nos
		Fibroadenoma
		Papillary Adenocarcinoma
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Preputial gland		Carcinoma, Nos
Spleen		Hematopoiesis
		Hemosiderosis
Thyroid		Hyperplasia, C Cell
Unspecified	Diaphragm Nos	Hernia, Nos
	Multiple Organs Nos	Inflammation, Chronic
	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_943

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney

Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos  
Necrosis, Focal

Lung

Lymph node

Mammary gland

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Cystic Ducts  
Fibroadenoma  
Cyst, Nos  
C-Cell Adenoma  
Hyperplasia, C Cell

Pituitary gland

Thyroid

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_944

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Angiectasis
		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
		Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
	Mucosa	Hyperplasia, Focal
		Inflammation, Chronic Focal
		Ulcer, Perforated
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_945

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Eye

Kidney

Retina

Tubule

Liver

Lung

Mammary gland

Thyroid

Unspecified

Multiple Organs Nos

Pheochromocytoma

Degeneration, Nos

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Focal Cellular Change

Inflammation, Chronic

Fibroadenoma

Hyperplasia, C Cell

Leukemia, Monocytic

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 3\_946

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic

Liver

Tubule

Pigmentation, Nos

Lung

Hepatitis, Toxic

Stomach

Inflammation, Chronic

Unspecified

Multiple Organs Nos

Acanthosis

Uterus

Leukemia, Monocytic

Hydrometra

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_947

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Bone marrow		Histiocytosis
Eye	Retina	Degeneration, Nos
	Cornea	Inflammation, Chronic Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hemorrhage
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Adenocarcinoma, Nos
		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Angiectasis
Spleen		Hematopoiesis
Thyroid		Cyst, Follicular Nos
		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_948

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts Hyperplasia, Nos
Pancreas		Ectopia
	Islets	Islet-Cell Carcinoma
Preputial gland		Cystic Ducts
Salivary gland	Parotid Gland Nos	Atrophy, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_949

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebellum Nos	Carcinoma, Nos, Invasive
Kidney		Inflammation, Chronic
		Mineralization
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Mammary gland		Adenocarcinoma, Nos
		Cystic Ducts
Pituitary gland		Carcinoma, Nos
Unspecified	Abdominal Cavity	Necrosis, Fat

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_950

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Fibrosis Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic Neoplastic Nodule
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts Fibroadenoma
Parathyroid gland		Angiectasis Hyperplasia, Focal
Spleen		Fibrosis, Focal
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Hyperplasia, C Cell Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_951

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma
Pituitary gland		Adenoma, Nos Angiectasis
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_952

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Metamorphosis, Fatty  
Inflammation, Chronic Diffuse  
Inflammation, Chronic  
Mineralization

Liver  
Lung

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Inflammation, Chronic  
Squamous Cell Carcinoma, Metastatic

Mammary gland  
Pancreas

Cystic Ducts  
Atrophy, Focal

Skin  
Spleen  
Thyroid

Back

Squamous Cell Carcinoma  
Hematopoiesis  
C-Cell Adenoma  
Follicular-Cell Carcinoma  
Hydrometra

Uterus

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:08

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_953

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla Cortex Nos	Hyperplasia, Focal Metamorphosis, Fatty Pheochromocytoma
Bone	Sternum	Osteopetrosis
Esophagus		Hyperkeratosis
Eye	Retina	Degeneration, Nos Hemorrhage Synechia, Anterior
Intestine Large	Muscularis, Colon Colon	Degeneration, Nos Leiomyosarcoma
Liver		Granuloma, Nos
Lung		Hemorrhage
Lymph node	Cervical Lymph Node Nos Mediastinal Lymph Node	C-Cell Carcinoma, Metastatic C-Cell Carcinoma, Metastatic
Mammary gland		Fibroadenoma Hyperplasia, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Stomach	Muscularis	Degeneration, Nos
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos Multiple Organs Nos	Inflammation, Chronic Mineralization
Uterus		Leiomyosarcoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_954

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Hyperkeratosis
Uterus		Endometrial Stromal Sarcoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_955

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Angiectasis
Bone	Sternum	Osteopetrosis
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
Liver	Tubule	Pigmentation, Nos
		Granuloma, Nos
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Pituitary gland		Hyperplasia, Focal
Spleen		Hemosiderosis
Unspecified	Flank	Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_956

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Esophagus  
Kidney

Liver

Lung  
Lymph node  
Mammary gland  
Pituitary gland  
Spleen  
Stomach

Tubule

Mesenteric Lymph Node

Pheochromocytoma  
Hyperkeratosis  
Inflammation, Chronic  
Mineralization  
Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos  
Metamorphosis, Fatty  
Necrosis, Focal  
Pigmentation, Nos  
Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Cystic Ducts  
Adenoma, Nos  
Hemosiderosis  
Acanthosis  
Hyperkeratosis  
Inflammation, Chronic Diffuse

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_957

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Bone

Skull

Osteopetrosis

Sternum

Osteopetrosis

Eye

Retina

Degeneration, Nos

Kidney

Inflammation, Chronic

Tubule

Pigmentation, Nos

Liver

Metamorphosis, Fatty

Necrosis, Focal

Lung

Pigmentation, Nos

Mammary gland

Inflammation, Chronic

Cystic Ducts

Pituitary gland

Fibroadenoma

Angiectasis

Stomach

Hyperplasia, Focal

Acanthosis

Hyperkeratosis

Inflammation, Chronic Diffuse

Uterus

Ulcer, Perforated

Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_958

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Congestion, Nos
		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic
		Necrosis, Focal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_959

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Galactocele
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_960

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Rib	Degeneration, Nos
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Pituitary gland		Hyperplasia, Focal
Unspecified	Diaphragm Nos	Hernia, Nos
	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Squamous Cell Papilloma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_961

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
		Sarcoma, Nos, Metastatic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Preputial gland		Cystic Ducts
		Hyperplasia, Diffuse
Spleen		Hemosiderosis
Thyroid		Hyperplasia, C Cell
Unspecified		Sarcoma, Nos
	Multiple Organs Nos	Sarcoma, Nos, Invasive
	Abdominal Cavity	Sarcoma, Nos, Metastatic
Urinary bladder		Hemorrhage

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_962

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Tubule

Pigmentation, Nos  
Hepatitis, Toxic

Liver  
Lung  
Lymph node  
Mammary gland

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Fibroadenoma  
Galactocele

Pancreas  
Pituitary gland  
Thyroid  
Unspecified

Multiple Organs Nos  
Back

Atrophy, Focal  
Adenoma, Nos  
Hyperplasia, C Cell  
Leukemia, Monocytic  
Lipoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_963

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
Pancreas		Atrophy, Focal
Spleen		Necrosis, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_964

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Granuloma, Nos Hepatitis, Toxic Necrosis, Focal Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Renal Lymph Node	Hyperplasia, Reticulum Cell
	Renal Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Angiectasis
Spleen		Hemorrhage
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Leiomyoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_965

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Lung  
Lymph node  
Pituitary gland  
Stomach

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Adenoma, Nos  
Acanthosis  
Hyperkeratosis  
Inflammation, Chronic Focal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_966

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
	Ileum	Necrosis, Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Lymphangiectasis
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
		Hyperplasia, Nos
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic
		Ulcer, Perforated
Thyroid		Hyperplasia, C Cell
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_967

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Inflammation, Chronic

Mammary gland

Fibroadenoma

Thyroid

Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_968

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Angiectasis
	Cortex Nos	Metamorphosis, Fatty
Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Metamorphosis, Fatty
Lymph node	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Angiectasis
		Hyperplasia, Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:08

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_969

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Myocardium Nos

Pheochromocytoma

Inflammation, Chronic Focal

Inflammation, Chronic

Mineralization

Tubule

Pigmentation, Nos

Liver

Hepatitis, Toxic

Lung

Inflammation, Chronic

Lymph node

Mediastinal Lymph Node

Lymphangiectasis

Mediastinal Lymph Node

Pigmentation, Nos

Mammary gland

Adenocarcinoma, Nos

Pituitary gland

Angiectasis

Thymus

Cyst, Multilocular

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:08  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_970

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
	Anterior Chamber	Empyema
	Cornea	Inflammation, Chronic Diffuse
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Hyperplasia, Alveolar Epithelium
		Inflammation, Chronic
Mammary gland		Cystic Ducts
Pancreas		Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Preputial gland		Sarcoma, Nos, Invasive
Spleen		Hematopoiesis
		Hemosiderosis
Stomach		Inflammation, Chronic Diffuse
		Necrosis, Focal
Unspecified		Sarcoma, Nos
Uterus	Cervix Uteri	Fibrosis, Diffuse

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_971

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Hepatitis, Toxic Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_972

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma Pheochromocytoma, Malignant
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver		Focal Cellular Change Granuloma, Nos Hepatitis, Toxic Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma Galactocele
Nasal cavity	Turbinate Nos	Inflammation, Acute
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos Abdominal Cavity	Leukemia, Monocytic Pheochromocytoma, Invasive

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_973

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain	Cerebrum	Astrocytoma
	Cerebrum	Carcinoma, Nos, Invasive
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Pituitary gland		Carcinoma, Nos
Spleen		Fibrosis, Multifocal
		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal
		Ulcer, Perforated
Thyroid		C-Cell Adenoma
Unspecified	Abdominal Cavity	Necrosis, Fat
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_974

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Lung	Tubule Alveoli	Pigmentation, Nos Histiocytosis Inflammation, Chronic Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland	Mesenteric Lymph Node	Pigmentation, Nos Cystic Ducts Fibroadenoma
Ovary		Cyst, Nos
Pituitary gland		Adenoma, Nos Angiectasis
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Adenocarcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_975

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal Metamorphosis, Fatty
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Renal Lymph Node	Pigmentation, Nos
Mammary gland		Adenoma, Nos Cystic Ducts Fibroadenoma Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse
Unspecified	Multiple Organs Nos	Ulcer, Perforated Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_976

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Lymph node	Cervical Lymph Node Nos	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Spleen		Pigmentation, Nos
		Fibrosis, Focal
Thyroid		Necrosis, Nos
		C-Cell Adenoma
		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_977

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
Lung		Inflammation, Chronic
		Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Thyroid		Hyperplasia, C Cell
Zymbal gland		Carcinoma, Nos
		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_978

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Bone

Skull

Osteopetrosis

Heart

Sternum

Osteopetrosis

Kidney

Myocardium Nos

Inflammation, Chronic Diffuse

Liver

Inflammation, Chronic

Mineralization

Lung

Metamorphosis, Fatty

Pigmentation, Nos

Mammary gland

Inflammation, Chronic

Fibroadenoma

Parathyroid gland

Hyperplasia, Nos

Hyperplasia, Nos

Spleen

Hemosiderosis

Stomach

Acanthosis

Hyperkeratosis

Thyroid

Inflammation, Chronic Diffuse

Ulcer, Perforated

Follicular-Cell Adenoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_979

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney	Inflammation, Chronic
Liver	Focal Cellular Change
Lung	Inflammation, Chronic
Uterus	Endometrial Stromal Sarcoma
	Endometrial Stromal Sarcoma, Invasive
Cervix Uteri	

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_980

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Cortex Nos	Angiectasis Hyperplasia, Focal Pheochromocytoma
Bone	Skull Rib	Osteopetrosis Osteosarcoma
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts Fibroadenoma
Preputial gland		Carcinoma, Nos
Stomach		Acanthosis Necrosis, Focal
Thyroid		C-Cell Adenoma Cyst, Follicular Nos
Unspecified	Diaphragm Nos Multiple Organs Nos	Hernia, Nos Leukemia, Monocytic
Uterus		Hydrometra

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_981

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Eye		Cataract
	Retina	Degeneration, Nos
		Inflammation, Chronic Focal
Intestine Large	Colon	Neurofibroma
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
		Galactocele
Pancreas		Atrophy, Diffuse
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_982

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver		Angiectasis Granuloma, Nos Hemorrhage
	Bile Duct	Inflammation, Chronic Metamorphosis, Fatty Neoplastic Nodule Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Erythrophagocytosis
	Mediastinal Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Adenoma, Nos Cystic Ducts Fibroadenoma
Pituitary gland		Angiectasis
Preputial gland		Adenoma, Nos
Thyroid		C-Cell Carcinoma
Uterus	Cervix Uteri	Acanthosis
	Cervix Uteri	Hyperkeratosis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_983

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebrum	Astrocytoma
Kidney		Congestion, Nos
		Inflammation, Chronic
Lung		Congestion, Nos
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_984

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Bone	Rib	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Jejunum	Leiomyosarcoma
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Lung		C-Cell Carcinoma, Metastatic
		Edema, Nos
	Alveoli	Histiocytosis
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Pituitary gland		Adenoma, Nos
Skin	Lip Nos	Abscess, Nos
	Flank	Cyst, Epidermal Inclusion
Spleen		Hematopoiesis
Thyroid		C-Cell Carcinoma
Uterus	Cervix Uteri	Abscess, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_985

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Brain	Cerebellum Nos	Carcinoma, Nos, Invasive
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
		Hemorrhage
		Necrosis, Focal
Lung		C-Cell Carcinoma, Metastatic
		Inflammation, Chronic
Lymph node	Cervical Lymph Node Nos	C-Cell Carcinoma, Metastatic
	Mediastinal Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Carcinoma, Nos
Skin	Face	Squamous Cell Papilloma
Spleen		Fibrosis, Multifocal
		Hemosiderosis
Stomach		Acanthosis
Thyroid		C-Cell Carcinoma
Unspecified	Diaphragm Nos	Hernia, Nos
Zymbal gland		Carcinoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_986

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Focal Cellular Change
Liver		Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
Lung		Pigmentation, Nos
Lymph node	Mediastinal Lymph Node	Cystic Ducts Fibrosis, Focal
Mammary gland		C-Cell Adenoma
Thyroid		Cyst, Follicular Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_987

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cortical Adenoma

Bone

Skull

Metamorphosis, Fatty

Heart

Myocardium Nos

Osteopetrosis

Kidney

Inflammation, Chronic Diffuse

Inflammation, Chronic

Mineralization

Liver

Tubule

Pigmentation, Nos

Focal Cellular Change

Kupffer Cell

Hyperplasia, Nos

Pigmentation, Nos

Lung

Inflammation, Chronic

Mammary gland

Fibroadenoma

Hyperplasia, Nos

Pituitary gland

Angiectasis

Salivary gland

Sarcoma, Nos

Thyroid

Cyst, Follicular Nos

Hyperplasia, C Cell

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

Multiple Organs Nos

Sarcoma, Nos, Invasive

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_988

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebrum	Astrocytoma
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Angiectasis
		Focal Cellular Change
		Granuloma, Nos
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Thyroid		Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_989

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Intestine Large  
Kidney

Cecum, Colon

Necrosis, Diffuse  
Inflammation, Chronic  
Mineralization

Liver  
Focal Cellular Change  
Granuloma, Nos

Lung  
Lymph node  
Mandibular Lymph Node  
Inflammation, Chronic  
Hyperplasia, Lymphoid

Mesenteric Lymph Node  
Hyperplasia, Reticulum Cell

Mammary gland  
Adenocarcinoma, Nos  
Cystic Ducts

Pituitary gland  
Adenoma, Nos

Preputial gland  
Carcinoma, Nos

Spleen  
Hematopoiesis

Thyroid  
C-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_990

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
		Inflammation, Chronic
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
		Hyperplasia, Nos
Preputial gland		Carcinoma, Nos
Spleen		Hematopoiesis
Stomach		Acanthosis
Thyroid		Cyst, Follicular Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_991

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Cortex Nos

Metamorphosis, Fatty

Kidney

Endocardium Nos

Neurilemoma, Malignant

Inflammation, Chronic

Mineralization

Liver

Tubule

Pigmentation, Nos

Lung

Metamorphosis, Fatty

Mammary gland

Inflammation, Chronic

Cystic Ducts

Ovary

Fibroadenoma

Pituitary gland

Cyst, Nos

Spleen

Adenoma, Nos

Stomach

Hemosiderosis

Inflammation, Chronic Diffuse

Necrosis, Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_992

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Inflammation, Chronic Diffuse

Kidney

Inflammation, Chronic

Tubule

Pigmentation, Nos

Liver

Granuloma, Nos

Lung

Pigmentation, Nos

Mammary gland

Inflammation, Chronic

Cystic Ducts

Pituitary gland

Fibroadenoma

Spleen

Galactocele

Adenoma, Nos

Hemosiderosis

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_993

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos Atrium	Inflammation, Chronic Focal Thrombosis, Nos
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Hepatitis, Toxic Metamorphosis, Fatty Necrosis, Focal Neoplastic Nodule Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Pituitary gland		Adenoma, Nos
Stomach		Necrosis, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Inflammation, Chronic Focal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 3\_994

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
Ovary		Granulosa-Cell Tumor
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_995

**TRT#:** 3  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hemorrhage
	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Cystic Ducts
		Fibroadenoma
Ovary		Cyst, Parovarian
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic
Thyroid		Ulcer, Perforated
		Cyst, Follicular Nos
		Hyperplasia, C Cell
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_996

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Ovary		Cyst, Parovarian
Preputial gland		Carcinoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 3\_997

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cortical Carcinoma
Intestine Large	Colon	Hyperplasia, Epithelial
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Pigmentation, Nos
Lung		Cortical Carcinoma, Metastatic
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Hyperplasia, Focal
Pancreas	Islets	Islet-Cell Carcinoma
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Spleen		Hemosiderosis
Thyroid		C-Cell Adenoma
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 3\_998

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Inflammation, Chronic Diffuse

Atrium

Thrombosis, Nos

Kidney

Inflammation, Chronic

Liver

Congestion, Nos

Lung

Alveoli

Histiocytosis

Inflammation, Chronic

Mammary gland

Cystic Ducts

Fibroadenoma

Pituitary gland

Galactocele

Angiectasis

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 3\_999

**TRT#:** 3

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Inflammation, Chronic

Mammary gland

Adenoma, Nos

Ovary

Cyst, Parovarian

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_419

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Colon

Parasitism

Kidney

Mixed Tumor, Malignant

Lung

Inflammation, Chronic

Lymph node

Mediastinal Lymph Node

Pigmentation, Nos

Spleen

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_420

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney

Nephrosis, Hydro

Lung

Sarcoma, Nos

Lymph node

Mediastinal Lymph Node

Inflammation, Chronic

Spleen

Mediastinal Lymph Node

Hemorrhage

Stomach

Follicles

Pigmentation, Nos

Atrophy, Nos

Pigmentation, Nos

Necrosis, Focal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_421

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
	Colon	Adenocarcinoma, Nos
	Transverse Colon, Colon	Adenomatous Polyp, Nos
Intestine Small	Mesentery Nos	Hemorrhage
Kidney		Inflammation, Chronic
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Spleen		Hemosiderosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_422

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Intestine Small

Duodenum

Signet Ring Carcinoma

Kidney

Inflammation, Chronic

Liver

Necrosis, Focal

Lymph node

Mediastinal Lymph Node

Hemorrhage

Mediastinal Lymph Node

Pigmentation, Nos

Pituitary gland

Adenoma, Nos

Unspecified

Multiple Organs Nos

Signet Ring Carcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_423

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large

Transverse Colon, Colon

Adenocarcinoma In Adenomatous Polyp

Transverse Colon, Colon

Adenomatous Polyp, Nos

Intestine Small

Jejunum

Signet Ring Carcinoma

Kidney

Inflammation, Chronic

Mineralization

Tubule

Pigmentation, Nos

Liver

Bile Duct

Cyst, Nos

Focal Cellular Change

Bile Duct

Hyperplasia, Nos

Bile Duct

Inflammation, Chronic

Lung

Inflammation, Chronic

Lymph node

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Mesenteric Lymph Node

Pigmentation, Nos

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_424

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone marrow		Osteopetrosis
Esophagus		Hyperkeratosis
Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Inflammation, Chronic
		Mineralization
Liver		Hepatitis, Toxic
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Mastocytosis
Ovary		Cyst, Parovarian
Unspecified	Multiple Organs Nos	Pigmentation, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_425

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenomatous Polyp, Nos  
Inflammation, Chronic  
Mixed Tumor, Malignant

Liver

Bile Duct

Cyst, Nos  
Focal Cellular Change  
Metamorphosis, Fatty  
Neoplastic Nodule

Lung  
Lymph node

Mesenteric Lymph Node  
Pancreatic Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Pigmentation, Nos

Thyroid  
Uterus

C-Cell Adenoma  
Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_426

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic Mixed Tumor, Malignant
Liver		Focal Cellular Change Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Uterus	Cervix Uteri	Fibrosis
Zymbal gland		Abscess, Nos Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_427

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Lung

Spleen

Stomach

Thyroid

Unspecified

Multiple Organs Nos

Sarcoma, Nos

Inflammation, Chronic

Hematopoiesis

Acanthosis

Hyperplasia, C Cell

Signet Ring Carcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_428

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Lung

Lymph node

Spleen

Mediastinal Lymph Node

Hematopoiesis

Mixed Tumor, Metastatic

Mixed Tumor, Malignant

Necrosis, Focal

Mixed Tumor, Metastatic

Pigmentation, Nos

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_429

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Transverse Colon, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
		Mixed Tumor, Malignant
Liver		Angiectasis
		Focal Cellular Change
		Hepatitis, Toxic
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
Ovary		Cyst, Follicular Nos
Pituitary gland		Angiectasis
Spleen		Hematopoiesis
Stomach		Acanthosis
		Hyperkeratosis

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_430

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Atrophy, Nos

Heart

Myocardium Nos

Mixed Tumor, Invasive

Kidney

Inflammation, Chronic Diffuse

Liver

Bile Duct

Mixed Tumor, Malignant

Lung

Cyst, Nos

Lymph node

Mediastinal Lymph Node

Focal Cellular Change

Spleen

Inflammation, Chronic

Stomach

Hyperplasia, Lymphoid

Hematopoiesis

Acanthosis

Inflammation, Chronic Diffuse

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_431

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mixed Tumor, Malignant
Liver		Focal Cellular Change
		Hepatitis, Toxic
	Bile Duct	Inflammation, Chronic
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Vagina		Acanthosis
		Hyperkeratosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_432

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney

Mineralization

Lung

Sarcoma, Nos

Lymph node

Mediastinal Lymph Node

Inflammation, Chronic

Pancreas

Mediastinal Lymph Node

Hemorrhage

Spleen

Pigmentation, Nos

Atrophy, Focal

Inflammation, Chronic Focal

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_433

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Heart	Myocardium Nos	Fibrosis, Focal
Intestine Large	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
	Descending, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Hepatitis, Toxic
Lung		Inflammation, Chronic
		Necrosis, Focal
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Pituitary gland		Adenoma, Nos
		Cyst, Nos
Thyroid		C-Cell Adenoma
Unspecified	Diaphragm Nos	Hernia, Nos
	Multiple Organs Nos	Leukemia, Monocytic
	Abdominal Cavity	Necrosis, Fat
	Abdominal Cavity	Steatitis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_434

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Intestine Large

Cortex Nos  
Cecum, Colon  
Ascending Colon, Colon

Metamorphosis, Fatty  
Adenocarcinoma, Nos  
Adenomatous Polyp, Nos

Kidney

Tubule

Mineralization

Lung

Lymph node

Skin

Unspecified

Mandibular Lymph Node

Pigmentation, Nos

Carcinosarcoma, Metastatic

Hyperplasia, Lymphoid

Carcinosarcoma

Zymbal gland

Ear

Multiple Organs Nos

Abscess, Nos

Adenocarcinoma, Nos, Metastatic

Hyperkeratosis

Hyperplasia, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_435

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Leukocytosis, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
Spleen		Hematopoiesis
Stomach		Necrosis, Focal
Zymbal gland		Carcinoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_436

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Angiectasis
	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Ascending Colon, Colon	Adenomatous Polyp, Nos
Intestine Small	Duodenum	Adenocarcinoma, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Cystic Ducts
		Fibroadenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Thrombus, Organized

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_437

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Intestine Small

Duodenum

Signet Ring Carcinoma

Liver

Hepatitis, Toxic

Stomach

Signet Ring Carcinoma, Metastatic

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_438

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Leukemia, Monocytic
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Thyroid		Cyst, Follicular Nos
Uterus	Endometrium	Cyst, Nos
Zymbal gland		Keratoacanthoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_439

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Mixed Tumor, Malignant
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
Spleen		Hematopoiesis
Urinary bladder		Hemorrhage

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_440

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Ascending Colon, Colon

Signet Ring Carcinoma

Kidney

Sarcoma, Nos

Liver

Necrosis, Focal

Lung

Inflammation, Chronic

Lymph node

Mediastinal Lymph Node

Hemorrhage

Spleen

Mediastinal Lymph Node

Pigmentation, Nos

Unspecified

Abdominal Cavity

Hematopoiesis

Sarcoma, Nos, Invasive

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 4\_441

TRT#: 4

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Intestine Large  
Kidney

Colon

Hyperplasia, Focal  
Inflammation, Chronic  
Mineralization

Liver

Tubule  
Bile Duct  
Bile Duct

Pigmentation, Nos  
Cyst, Nos  
Fibrosis  
Focal Cellular Change  
Granuloma, Nos

Bile Duct  
Bile Duct

Hyperplasia, Nos  
Inflammation, Chronic  
Metamorphosis, Fatty  
Inflammation, Chronic

Lung  
Lymph node  
Pancreas  
Pituitary gland  
Preputial gland  
Spleen  
Uterus

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell  
Atrophy, Focal  
Angiectasis  
Carcinoma, Nos  
Hemosiderosis  
Cyst, Nos  
Hydrometra

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_442

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Necrosis, Focal

Intestine Large

Transverse Colon, Colon

Sarcoma, Nos, Invasive

Kidney

Adenomatous Polyp, Nos

Lung

Mineralization

Lymph node

Sarcoma, Nos

Spleen

Mediastinal Lymph Node

Inflammation, Chronic

Uterus

Mesenteric Lymph Node

Hemorrhage

Hyperplasia, Reticulum Cell

Hematopoiesis

Endometrial Stromal Polyp

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_443

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large

Ascending Colon, Colon

Adenocarcinoma In Adenomatous Polyp

Intestine Small

Duodenum

Adenocarcinoma, Nos

Kidney

Mixed Tumor, Malignant

Liver

Focal Cellular Change

Lung

Inflammation, Chronic

Stomach

Acanthosis

Unspecified

Multiple Organs Nos

Hyperkeratosis

Zymbal gland

Adenocarcinoma, Nos, Metastatic

Squamous Cell Papilloma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_444

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Metamorphosis, Fatty  
Inflammation, Chronic Diffuse  
Inflammation, Chronic  
Mineralization

Liver  
Lung  
Lymph node

Tubule

Pigmentation, Nos  
Hepatitis, Toxic  
Inflammation, Chronic  
Hyperplasia, Reticulum Cell

Unspecified  
Uterus

Pancreatic Lymph Node  
Pancreatic Lymph Node  
Multiple Organs Nos  
Endometrium

Pigmentation, Nos  
Leukemia, Monocytic  
Hyperplasia, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_445

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Intestine Large

Colon

Hyperplasia, Focal

Kidney

Sarcoma, Nos

Liver

Focal Cellular Change

Metamorphosis, Fatty

Lung

Inflammation, Chronic

Lymph node

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Pituitary gland

Hyperplasia, Focal

Spleen

Hematopoiesis

Thyroid

Follicular-Cell Adenoma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_446

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Eye		Cataract
	Retina	Degeneration, Nos
Intestine Large	Ascending Colon, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
		Mineralization
		Mixed Tumor, Malignant
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_447

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Ascending Colon, Colon

Adenocarcinoma In Adenomatous Polyp

Kidney

Inflammation, Chronic

Liver

Bile Duct

Cyst, Nos

Lung

Focal Cellular Change

Lymph node

Inflammation, Chronic

Pituitary gland

Celiac Lymph Node

Adenocarcinoma In Adenomatous Polyp, Metastatic

Spleen

Pigmentation, Nos

Zymbal gland

Hematopoiesis

Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_448

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic

Liver  
Lung

Tubule

Pigmentation, Nos  
Hepatitis, Toxic  
Inflammation, Chronic

Lymph node  
Pancreas

Mesenteric Lymph Node

Pigmentation, Nos  
Atrophy, Focal

Thyroid  
Unspecified

Islets

Islet-Cell Adenoma  
Cyst, Follicular Nos

Multiple Organs Nos

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_449

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Small

Duodenum

Adenocarcinoma, Nos

Liver

Bile Duct

Hyperplasia, Nos

Hyperplasia, Reticulum Cell

Necrosis, Focal

Spleen

Hematopoiesis

Unspecified

Multiple Organs Nos

Adenocarcinoma, Nos, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_450

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Intestine Small	Ileum, Ileum	Adenocarcinoma In Adenomatous Polyp
	Ileum, Ileum	Hyperplasia, Diffuse
Kidney		Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Alveolar/Bronchiolar Carcinoma
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Ileocolic Lymph Node	Lymphangiectasis
Skin	Ear	Squamous Cell Papilloma
Stomach		Acanthosis
		Inflammation, Chronic
Thyroid		Hyperplasia, C Cell
Uterus		Hydrometra

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_451

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Eye	Cornea	Inflammation, Chronic Synechia, Anterior
Intestine Large	Ascending Colon, Colon	Signet Ring Carcinoma, Metastatic
Intestine Small	Duodenum	Signet Ring Carcinoma
Kidney		Inflammation, Chronic
Lung		Inflammation, Chronic
Spleen	Follicles	Atrophy, Nos
Unspecified	Diaphragm Nos	Hernia, Nos
	Mediastinum Nos	Signet Ring Carcinoma, Metastatic
Zymbal gland		Carcinoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_452

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Cecum, Colon

Signet Ring Carcinoma

Kidney

Mineralization

Liver

Metamorphosis, Fatty

Lung

Inflammation, Chronic

Spleen

Hematopoiesis

Stomach

Hyperkeratosis

Unspecified

Multiple Organs Nos

Signet Ring Carcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_453

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Intestine Large  
Kidney

Transverse Colon, Colon

Liver

Tubule

Bile Duct

Lung  
Mammary gland  
Pituitary gland  
Spleen  
Uterus  
Zymbal gland

Angiectasis  
Adenomatous Polyp, Nos  
Inflammation, Chronic  
Mineralization  
Pigmentation, Nos  
Focal Cellular Change  
Hyperplasia, Nos  
Neurofibrosarcoma  
Inflammation, Chronic  
Cystic Ducts  
Adenoma, Nos  
Hemosiderosis  
Endometrial Stromal Polyp  
Carcinoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_454

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Cortical Adenoma

Heart

Myocardium Nos

Hyperplasia, Focal

Kidney

Tubule

Inflammation, Chronic Diffuse

Inflammation, Chronic

Pigmentation, Nos

Thrombus, Organized

Tubular-Cell Adenoma

Liver

Bile Duct

Cyst, Multiple

Focal Cellular Change

Granuloma, Nos

Hyperplasia, Nos

Lung

Bile Duct

Inflammation, Chronic

Lymph node

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Mammary gland

Fibroadenoma

Pancreas

Atrophy, Focal

Thyroid

Hyperplasia, C Cell

Unspecified

Abdominal Cavity

Necrosis, Fat

Uterus

Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_455

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Granuloma, Nos
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
Pancreas	Islets	Islet-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_456

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large

Descending, Colon  
Colon

Adenocarcinoma In Adenomatous Polyp  
Parasitism

Kidney

Inflammation, Chronic  
Mineralization

Liver

Bile Duct

Cyst, Nos  
Focal Cellular Change  
Granuloma, Nos

Lung

Metamorphosis, Fatty

Thyroid

Inflammation, Chronic  
C-Cell Adenoma

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_457

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Esophagus

Hyperkeratosis

Kidney

Sarcoma, Nos

Liver

Hepatitis, Toxic

Lung

Inflammation, Chronic

Spleen

Hematopoiesis

Stomach

Inflammation, Acute Focal

Vagina

Necrosis, Focal

Acanthosis

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_458

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Tubule

Inflammation, Chronic  
Pigmentation, Nos  
Tubular-Cell Adenocarcinoma

Liver

Focal Cellular Change  
Hepatitis, Toxic

Lung

Inflammation, Chronic

Mammary gland

Cystic Ducts

Pituitary gland

Cyst, Nos

Spleen

Fibrosis

Hemorrhage

Necrosis, Focal

Unspecified

Diaphragm Nos

Hernia, Nos

Multiple Organs Nos

Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_459

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Skull	Osteopetrosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Descending, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Metamorphosis, Fatty
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Renal Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Hydrometra

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_460

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Epicardium	Mesothelioma, Nos
Intestine Small	Duodenum	Adenocarcinoma, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
Spleen		Hematopoiesis
Unspecified	Multiple Organs Nos	Adenocarcinoma, Nos, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_461

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large

Descending, Colon

Adenocarcinoma In Adenomatous Polyp

Kidney

Descending, Colon

Signet Ring Carcinoma

Liver

Inflammation, Chronic

Mineralization

Lung

Bile Duct

Granuloma, Nos

Inflammation, Chronic

Lymph node

Inflammation, Chronic

Mammary gland

Ileocolic Lymph Node

Signet Ring Carcinoma, Metastatic

Spleen

Fibroadenoma

Thyroid

Hematopoiesis

Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_462

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_463

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Fibrosis, Focal
Intestine Large	Ascending Colon, Colon	Adenocarcinoma In Adenomatous Polyp
	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
	Transverse Colon, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
		Mineralization
Liver	Bile Duct	Fibrosis
		Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_464

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Esophagus

Hyperkeratosis

Kidney

Sarcoma, Nos

Lung

Inflammation, Chronic

Uterus

Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_465

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain	Cerebrum	Hydrocephalus, Nos
Intestine Large	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney	Tubule	Inflammation, Chronic Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Ovary		Cyst, Parovarian
Pancreas		Ectopia Inflammation, Chronic Focal
Pituitary gland		Adenoma, Nos
Skin		Cyst, Epidermal Inclusion
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Necrosis, Focal
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_466

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Rectum	Abscess, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
		Tubular-Cell Adenocarcinoma
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
		Granuloma, Nos
		Leukemia, Monocytic
		Metamorphosis, Fatty
Lung		Alveolar/Bronchiolar Adenoma
		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Spleen		Hemosiderosis
Thyroid		Follicular-Cell Adenoma
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_467

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
	Rectum	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
		Mineralization
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Pancreas		Ectopia
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_468

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Intestine Large

Medulla  
Myocardium Nos  
Ascending Colon, Colon  
Transverse Colon, Colon

Hyperplasia, Focal  
Inflammation, Chronic Focal  
Adenomatous Polyp, Nos  
Adenomatous Polyp, Nos  
Inflammation, Chronic  
Mineralization

Kidney

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos

Liver

Bile Duct

Inflammation, Chronic  
Metamorphosis, Fatty  
Inflammation, Chronic

Lung

Mammary gland

Thyroid

Zymbal gland

Cystic Ducts  
C-Cell Carcinoma  
Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_469

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Natural Death

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Eye		Phthisis Bulbi
Intestine Large	Colon	Adenocarcinoma, Nos
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Spleen		Hemosiderosis
Stomach		Necrosis, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Orbital Region	Sarcoma, Nos
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_470

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenomatous Polyp, Nos  
Mixed Tumor, Malignant  
Sarcoma, Nos

Liver

Bile Duct

Cyst, Nos  
Focal Cellular Change

Lung

Inflammation, Chronic

Spleen

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_471

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Large  
Kidney

Transverse Colon, Colon

Adenomatous Polyp, Nos  
Inflammation, Chronic  
Pigmentation, Nos

Liver

Tubule

Focal Cellular Change  
Hepatocellular Carcinoma  
Leukemia, Monocytic  
Necrosis, Focal  
Neoplastic Nodule

Lung

Lymph node

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Atrophy, Focal

Pancreas

Pituitary gland

Stomach

Uterus

Adenoma, Nos  
Acanthosis  
Endometrial Stromal Sarcoma  
Endometrial Stromal Sarcoma, Invasive

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_472

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Brain

Cerebrum

Abscess, Nos

Heart

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Tubule

Pigmentation, Nos

Liver

Sarcoma, Nos

Focal Cellular Change

Lung

Metamorphosis, Fatty

Inflammation, Chronic

Skin

Ear

Fibrosarcoma

Zymbal gland

Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_473

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Brain		Hematopoiesis
Esophagus		Hyperkeratosis
Intestine Large	Colon	Hyperplasia, Focal
Intestine Small	Duodenum	Adenocarcinoma, Nos
Kidney		Inflammation, Chronic
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Salivary gland		Atrophy, Diffuse
		Inflammation, Chronic Diffuse
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal
Zymbal gland		Abscess, Nos
		Carcinoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_474

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Sarcoma, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Ovary		Cyst, Follicular Nos
Spleen		Hematopoiesis
Urinary bladder		Calculus, Unknown Gross Or Micro
		Hyperplasia, Papillary
		Inflammation, Chronic
Uterus		Hydrometra

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_475

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Ascending Colon, Colon Transverse Colon, Colon Colon	Adenocarcinoma, Nos Adenomatous Polyp, Nos Cyst, Nos
Kidney	Tubule	Inflammation, Chronic Pigmentation, Nos
Liver		Focal Cellular Change Neoplastic Nodule
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis Hyperkeratosis
Thyroid		Inflammation, Chronic Focal C-Cell Adenoma Follicular-Cell Adenoma
Unspecified	Thorax	Abscess, Nos
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_476

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cerebrum	Gliosis
Intestine Large	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Mineralization
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
Spleen		Hematopoiesis
Zymbal gland		Squamous Cell Papilloma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_477

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Tubule

Pigmentation, Nos

Liver

Focal Cellular Change

Metamorphosis, Fatty

Pancreas

Atrophy, Diffuse

Pituitary gland

Cyst, Nos

Stomach

Acanthosis

Hyperkeratosis

Thyroid

Hyperplasia, C Cell

Unspecified

Multiple Organs Nos

Inflammation, Chronic

Multiple Organs Nos

Leukemia, Monocytic

Zymbal gland

Hyperplasia, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_478

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Necrosis, Nos

Heart

Inflammation, Chronic Diffuse

Kidney

Sarcoma, Nos

Liver

Focal Cellular Change

Lung

Metamorphosis, Fatty

Pancreas

Inflammation, Chronic

Spleen

Inflammation, Chronic

Unspecified

Diaphragm Nos

Hematopoiesis

Hernia, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_479

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Inflammation, Chronic
		Mixed Tumor, Malignant
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Pigmentation, Nos
Uterus		Inflammation, Chronic
		Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_480

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Kidney

Liver

Lung

Ganglioneuroma

Inflammation, Chronic

Mineralization

Focal Cellular Change

Congestion, Nos

Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_481

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Ovary		Cyst, Parovarian
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Cervix Uteri	Fibrosarcoma

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_482

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenocarcinoma In Adenomatous Polyp

Liver

Tubule

Inflammation, Chronic

Pigmentation, Nos

Focal Cellular Change

Hepatitis, Toxic

Neoplastic Nodule

Lung

Inflammation, Chronic

Lymph node

Mandibular Lymph Node

Hyperplasia, Lymphoid

Pancreas

Atrophy, Focal

Pituitary gland

Angiectasis

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_483

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Kidney

Descending, Colon

Adenomatous Polyp, Nos  
Inflammation, Chronic

Liver

Tubule

Pigmentation, Nos

Lung

Focal Cellular Change

Lymph node

Mandibular Lymph Node

Inflammation, Chronic

Mammary gland

Mesenteric Lymph Node

Hyperplasia, Lymphoid

Ovary

Hyperplasia, Reticulum Cell

Pituitary gland

Adenoma, Nos

Uterus

Endometrium

Cystic Ducts

Fibroadenoma

Cyst, Parovarian

Cyst, Nos

Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_484

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Intestine Large  
Kidney  
Liver  
Lung  
Spleen  
Uterus

Cortex Nos  
Descending, Colon  
  
  
  
  
Cervix Uteri

Hyperplasia, Focal  
Adenomatous Polyp, Nos  
Inflammation, Chronic  
Hematopoiesis  
Inflammation, Chronic  
Hematopoiesis  
Angioma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_485

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Small

Duodenum

Signet Ring Carcinoma

Kidney

Mixed Tumor, Malignant

Thyroid

Hyperplasia, C Cell

Unspecified

Multiple Organs Nos

Signet Ring Carcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_486

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma, Malignant
Heart	Myocardium Nos	Fibrosis, Multifocal
Intestine Large	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
	Transverse Colon, Colon	Adenomatous Polyp, Nos
	Transverse Colon, Colon	Hemorrhage
	Transverse Colon, Colon	Necrosis, Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Neoplastic Nodule
Lung		Inflammation, Chronic
		Pheochromocytoma, Metastatic
Pituitary gland		Angiectasis
		Cyst, Nos
Skin	Nose	Acanthosis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Endometrium	Cyst, Nos
	Endometrium	Hyperplasia, Focal
Zymbal gland		Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_487

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Eye	Retina	Degeneration, Nos
Intestine Large	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Metamorphosis, Fatty
		Neoplastic Nodule
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
		Fibroadenoma
Spleen		Hemosiderosis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_488

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Lung

Pituitary gland

Thyroid

Unspecified

Zymbal gland

Myocardium Nos

Multiple Organs Nos

Abdominal Cavity

Mixed Tumor, Invasive

Inflammation, Chronic Focal

Mixed Tumor, Malignant

Angiectasis

Hepatitis, Toxic

Inflammation, Chronic

Angiectasis

C-Cell Carcinoma

Hyperplasia, C Cell

Leukemia, Monocytic

Mixed Tumor, Invasive

Squamous Cell Papilloma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_489

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Cardiac Valve	Inflammation, Chronic Focal
	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Angiectasis
	Bile Duct	Cyst, Nos
		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mediastinal Lymph Node	Pigmentation, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_490

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Necrosis, Focal
Lung		Inflammation, Chronic
		Liposarcoma, Metastatic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Preputial gland		Carcinoma, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_491

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye		Cataract
	Anterior Chamber	Empyema
	Cornea	Inflammation, Acute
	Cornea	Necrosis, Nos
Intestine Large	Ascending Colon, Colon	Adenomatous Polyp, Nos
	Ascending Colon, Colon	Necrosis, Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Ileocolic Lymph Node	Lymphangiectasis
	Mandibular Lymph Node	Lymphangiectasis
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Adenoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp
Zymbal gland		Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_492

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Liver

Ascending Colon, Colon

Mucinous Cystadenocarcinoma  
Hemorrhage  
Necrosis, Focal

Lung  
Spleen

Inflammation, Chronic  
Hematopoiesis

Unspecified

Multiple Organs Nos

Mucinous Cystadenocarcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_493

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Transverse Colon, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Chronic
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_494

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Inflammation, Chronic Diffuse

Kidney

Inflammation, Chronic

Tubule

Pigmentation, Nos

Liver

Focal Cellular Change

Granuloma, Nos

Bile Duct

Hyperplasia, Nos

Bile Duct

Inflammation, Chronic

Metamorphosis, Fatty

Lung

Inflammation, Chronic

Mammary gland

Cystic Ducts

Fibroadenoma

Thyroid

Cyst, Follicular Nos

Unspecified

Diaphragm Nos

Hernia, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_495

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Intestine Large  
Kidney

Ascending Colon, Colon

Mucinous Cystadenocarcinoma  
Inflammation, Chronic  
Sarcoma, Nos

Liver

Necrosis, Focal

Lung

Inflammation, Chronic

Lymph node

Mediastinal Lymph Node

Pigmentation, Nos

Spleen

Hematopoiesis

Unspecified

Multiple Organs Nos

Mucinous Cystadenocarcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_496

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone marrow		Hypoplasia, Nos
Ear	Canal	Squamous Cell Carcinoma
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Ascending Colon, Colon	Adenocarcinoma In Adenomatous Polyp
	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Hepatitis, Toxic
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Pancreas		Inflammation, Chronic Focal
Pituitary gland		Angiectasis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_497

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Descending, Colon	Adenocarcinoma In Adenomatous Polyp
Kidney		Inflammation, Chronic
		Mineralization
		Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Neoplastic Nodule
Lung		Inflammation, Chronic
Ovary		Cyst, Parovarian
Spleen		Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_498

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Intestine Large	Ascending Colon, Colon	Signet Ring Carcinoma
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_499

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Fibrosis, Multifocal
Intestine Large	Transverse Colon, Colon	Adenomatous Polyp, Nos
	Colon	Parasitism
	Ascending Colon, Colon	Signet Ring Carcinoma
Kidney		Hemangioma
		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
		Hepatocellular Carcinoma
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Signet Ring Carcinoma, Metastatic
Pituitary gland		Angiectasis
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Urinary bladder		Endometrial Stromal Sarcoma, Invasive
Uterus		Endometrial Stromal Sarcoma
	Cervix Uteri	Endometrial Stromal Sarcoma, Invasive

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_500

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Descending, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
		Hepatitis, Toxic
Lung		Inflammation, Chronic
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_501

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Transverse Colon, Colon Cecum, Colon	Adenocarcinoma In Adenomatous Polyp Necrosis, Focal
Kidney	Tubule	Inflammation, Chronic Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Spleen		Hepatitis, Toxic Necrosis, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_502

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Hyperplasia, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_503

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Intestine Small

Mesentery Nos

Sarcoma, Nos, Invasive

Kidney

Sarcoma, Nos

Lung

Inflammation, Chronic

Lymph node

Mediastinal Lymph Node

Hyperplasia, Lymphoid

Mesenteric Lymph Node

Hyperplasia, Lymphoid

Mediastinal Lymph Node

Pigmentation, Nos

Spleen

Hematopoiesis

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_504

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Intestine Large  
Kidney

Cortex Nos  
Transverse Colon, Colon

Necrosis, Focal  
Adenomatous Polyp, Nos  
Mineralization

Lung  
Lymph node  
Thyroid  
Unspecified  
Zymbal gland

Tubule  
  
Mesenteric Lymph Node

Pigmentation, Nos  
Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Hyperplasia, C Cell  
Leukemia, Monocytic  
Squamous Cell Papilloma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_505

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Ear

Intestine Large

Kidney

Lung

Lymph node

Spleen

Unspecified

Canal

Ascending Colon, Colon

Tubule

Mandibular Lymph Node

Mediastinal Lymph Node

Mesenteric Lymph Node

Multiple Organs Nos

Pheochromocytoma

Squamous Cell Papilloma

Signet Ring Carcinoma

Inflammation, Chronic

Pigmentation, Nos

Inflammation, Chronic

Hyperplasia, Lymphoid

Hyperplasia, Lymphoid

Hyperplasia, Reticulum Cell

Necrosis, Focal

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_506

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Transverse Colon, Colon	Adenocarcinoma In Adenomatous Polyp
	Transverse Colon, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_507

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Duodenum	Signet Ring Carcinoma
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
	Multiple Organs Nos	Signet Ring Carcinoma, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_508

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Sternum	Osteopetrosis
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Ascending Colon, Colon	Adenomatous Polyp, Nos
Intestine Small	Duodenum	Adenocarcinoma, Nos
Kidney		Inflammation, Chronic
		Mineralization
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Pituitary gland		Angiectasis
Unspecified	Multiple Organs Nos	Adenocarcinoma, Nos, Metastatic
Uterus	Endometrium	Cyst, Nos
		Hydrometra

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_509

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Descending, Colon  
Transverse Colon, Colon  
Descending, Colon  
Transverse Colon, Colon

Adenomatous Polyp, Nos  
Adenomatous Polyp, Nos  
Parasitism  
Parasitism

Kidney

Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Hepatitis, Toxic

Bile Duct

Hyperplasia, Nos

Bile Duct

Inflammation, Chronic

Lung

Inflammation, Chronic

Lymph node

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Mesenteric Lymph Node

Pigmentation, Nos

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

Uterus

Hydrometra

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_510

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Large	Ascending Colon, Colon Transverse Colon, Colon Colon Colon Cecum, Colon	Adenocarcinoma In Adenomatous Polyp Adenomatous Polyp, Nos Carcinoma In Situ, Nos Hyperplasia, Focal Necrosis, Focal
Kidney	Tubule	Inflammation, Chronic Pigmentation, Nos
Liver	Bile Duct	Focal Cellular Change Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node Mesenteric Lymph Node	Hyperplasia, Lymphoid Hyperplasia, Reticulum Cell
Pituitary gland		Adenoma, Nos Angiectasis
Spleen		Hematopoiesis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 4\_511

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Large

Descending, Colon

Adenocarcinoma In Adenomatous Polyp

Kidney

Descending, Colon

Adenomatous Polyp, Nos

Liver

Inflammation, Chronic

Mixed Tumor, Malignant

Lung

Focal Cellular Change

Granuloma, Nos

Lymph node

Inflammation, Chronic

Hemorrhage

Mediastinal Lymph Node

Hyperplasia, Reticulum Cell

Mesenteric Lymph Node

Pigmentation, Nos

Mediastinal Lymph Node

Pancreas

Ectopia

Thyroid

Hyperplasia, C Cell

Uterus

Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_512

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney		Inflammation, Chronic Sarcoma, Nos
Liver		Focal Cellular Change Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
Ovary		Cyst, Parovarian
Spleen		Hematopoiesis

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_513

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland  
Ear  
Kidney

Medulla  
Canal

Hyperplasia, Focal  
Squamous Cell Carcinoma  
Fibrosis, Focal  
Inflammation, Chronic  
Pigmentation, Nos

Tubule

Thrombosis, Nos  
Focal Cellular Change  
Metamorphosis, Fatty

Liver

Inflammation, Chronic

Lung

Lymph node

Mandibular Lymph Node

Hyperplasia, Lymphoid

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Spleen

Hemosiderosis

Stomach

Acanthosis

Hyperkeratosis

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_514

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large

Ascending Colon, Colon  
Colon

Mucinous Cystadenocarcinoma  
Mucinous Cystadenocarcinoma, Metastatic

Kidney

Inflammation, Chronic

Liver

Bile Duct

Cyst, Nos

Focal Cellular Change

Lung

Leukemia, Monocytic

Lymph node

Ileocolic Lymph Node

Mucinous Cystadenocarcinoma, Metastatic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_515

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Descending, Colon

Adenocarcinoma In Adenomatous Polyp

Descending, Colon

Adenomatous Polyp, Nos

Kidney

Inflammation, Chronic

Liver

Bile Duct

Cyst, Nos

Focal Cellular Change

Bile Duct

Inflammation, Chronic

Lung

Inflammation, Chronic

Lymph node

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell

Mesenteric Lymph Node

Pigmentation, Nos

Zymbal gland

Carcinoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_516

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Kidney

Ascending Colon, Colon

Adenocarcinoma, Nos  
Inflammation, Chronic  
Mixed Tumor, Malignant

Liver

Necrosis, Focal

Lung

Inflammation, Chronic

Lymph node

Mediastinal Lymph Node

Hemorrhage

Spleen

Hematopoiesis

Uterus

Endometrium

Cyst, Nos

Zymbal gland

Squamous Cell Papilloma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_517

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Intestine Large

Descending, Colon  
Ascending Colon, Colon

Adenocarcinoma In Adenomatous Polyp  
Adenomatous Polyp, Nos

Kidney

Inflammation, Chronic

Liver

Bile Duct

Cyst, Nos

Bile Duct

Focal Cellular Change

Hyperplasia, Focal

Neoplastic Nodule

Lung

Inflammation, Chronic

Lymph node

Pancreatic Lymph Node

Pigmentation, Nos

Thyroid

Follicular-Cell Adenoma

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

Uterus

Endometrial Stromal Polyp

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_518

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Mandible	Carcinoma, Nos, Invasive
Intestine Large	Colon	Hyperplasia, Focal
	Colon	Parasitism
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Inflammation, Chronic Focal
		Necrosis, Focal
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Unspecified		Carcinoma, Nos, Invasive
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_519

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Eye		Cataract
Kidney		Mixed Tumor, Malignant
Liver		Angiectasis
		Focal Cellular Change
		Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mediastinal Lymph Node	Pigmentation, Nos
Spleen		Hematopoiesis
Stomach		Mixed Tumor, Invasive
Unspecified	Diaphragm Nos	Hernia, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

---

**ANIMAL ID:** 4\_520

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain  
Intestine Large  
Kidney  
Liver

Cerebrum  
Colon

Hydrocephalus, Nos  
Parasitism  
Inflammation, Chronic  
Focal Cellular Change  
Granuloma, Nos

Lung  
Lymph node

Mediastinal Lymph Node  
Mesenteric Lymph Node  
Pancreatic Lymph Node  
Ileocolic Lymph Node  
Mediastinal Lymph Node

Metamorphosis, Fatty  
Inflammation, Chronic  
Hemorrhage  
Hyperplasia, Reticulum Cell  
Hyperplasia, Reticulum Cell  
Lymphangiectasis  
Pigmentation, Nos  
Cystic Ducts  
Carcinoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_521

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large

Transverse Colon, Colon

Adenocarcinoma In Adenomatous Polyp

Liver

Transverse Colon, Colon

Adenomatous Polyp, Nos

Lung

Neoplastic Nodule

Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_522

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis, Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
	Mesenteric Lymph Node	Pigmentation, Nos
Spleen		Hemosiderosis
Uterus		Leiomyoma
Zymbal gland		Carcinoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_523

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Descending, Colon	Adenomatous Polyp, Nos
	Colon	Parasitism
Kidney		Inflammation, Chronic
Liver	Bile Duct	Cyst, Nos
		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Ovary		Cyst, Parovarian
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Uterus		Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 4\_524

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Descending, Colon Ascending Colon, Colon	Adenocarcinoma In Adenomatous Polyp Mucinous Cystadenocarcinoma
Kidney		Mixed Tumor, Malignant
Spleen		Hematopoiesis
Stomach		Squamous Cell Papilloma
Thyroid		Cyst, Follicular Nos
Unspecified	Multiple Organs Nos	Mucinous Cystadenocarcinoma, Metastatic
Uterus	Endometrium	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_525

**TRT#:** 4  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Cecum, Colon	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Ileocolic Lymph Node	Lymphangiectasis
Mammary gland		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Hyperplasia, Focal
Skin		Cyst, Epidermal Inclusion
Thyroid		Hyperplasia, C Cell
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:09

First Dose M/F: NA / NA

Lab: NA

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<b>ANIMAL ID:</b> 5_626	<b>TRT#:</b> 5 <b>DOSE:</b> 10000 PPM	<b>SEX:</b> Female <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> <b>HISTO:</b>
<hr/> <b>OBSERVATIONS</b>			
Adrenal gland	Cortex Nos	Metamorphosis, Fatty	
Kidney		Mineralization	
	Tubule	Pigmentation, Nos	
Liver		Focal Cellular Change	
		Metamorphosis, Fatty	
		Necrosis, Focal	
		Pigmentation, Nos	
Lung		Hyperplasia, Alveolar Epithelium	
		Inflammation, Acute Diffuse	
		Necrosis, Diffuse	
Mammary gland		Fibroadenoma	
		Galactocele	
Pituitary gland		Adenoma, Nos	
Preputial gland		Necrosis, Focal	
Spleen	Follicles	Atrophy, Nos	
		Hemosiderosis	
Stomach		Acanthosis	
		Hyperkeratosis	
		Necrosis, Focal	
		Ulcer, Perforated	
Thyroid		C-Cell Carcinoma	
Unspecified	Multiple Organs Nos	Inflammation, Chronic	
	Diaphragm Nos	Necrosis, Focal	
	Diaphragm Nos	Pigmentation, Nos	
<hr/> <b>PRIMARY CAUSE OF DEATH</b> -			

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_627

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cyst, Nos
	Cortex Nos	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Brain	Cerebrum	Astrocytoma
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Mesentery Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Cystic Ducts
		Hyperplasia, Diffuse
Pituitary gland		Adenoma, Nos
Skin	Eyelid Nos	Fibroma
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
Thyroid		Ulcer, Perforated
Uterus		C-Cell Adenoma
		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_628

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Mammary gland		Hyperplasia, Nos
Pancreas		Ectopia
Pituitary gland		Cyst, Nos
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_629

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Metamorphosis, Fatty  
Inflammation, Chronic Focal  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Degeneration, Nos  
Granuloma, Nos  
Pigmentation, Nos

Lung  
Lymph node  
Mammary gland  
Pituitary gland  
Preputial gland

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Cystic Ducts  
Adenoma, Nos  
Abscess, Nos  
Cystic Ducts

Spleen

Follicles

Hyperkeratosis  
Atrophy, Nos  
Hemosiderosis

Thyroid  
Urinary bladder

C-Cell Carcinoma  
Hyperplasia, Papillary

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_630

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Bone marrow		Fibrosis, Myelo
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Pancreas		Atrophy, Focal
Pituitary gland		Adenoma, Nos
Spleen	Follicles	Atrophy, Nos Fibrosis, Diffuse
Thyroid		Cystic Follicles
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Hydrometra Pigmentation, Nos
Zymbal gland		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_631

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Intestine Large  
Kidney

Cortex Nos  
Myocardium Nos  
Transverse Colon, Colon

Metamorphosis, Fatty  
Inflammation, Chronic Focal  
Carcinoma, Nos  
Inflammation, Chronic  
Mineralization

Liver  
Lung  
Lymph node

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Lymphangiectasis

Mammary gland

Mesenteric Lymph Node  
Mesenteric Lymph Node

Cystic Ducts  
Fibroadenoma  
Hyperplasia, Focal  
Hematopoiesis  
Hyperplasia, C Cell

Spleen  
Thyroid

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_632

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Inflammation, Chronic Diffuse

Kidney

Inflammation, Chronic

Tubule

Pigmentation, Nos

Liver

Focal Cellular Change

Necrosis, Focal

Neoplastic Nodule

Lung

Inflammation, Chronic

Mammary gland

Adenocarcinoma, Nos

Cystic Ducts

Fibroadenoma

Hyperplasia, Diffuse

Pancreas

Atrophy, Diffuse

Spleen

Hematopoiesis

Stomach

Acanthosis

Necrosis, Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_633

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Descending, Colon	Adenomatous Polyp, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
		Hyperplasia, Diffuse
Pituitary gland		Adenoma, Nos
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Hydrometra

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_634

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Brain	Cerebrum	Hemorrhage
Eye	Ciliary Body	Leiomyosarcoma
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Hemorrhage
		Necrosis, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_635

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma
	Cortex Nos	Metamorphosis, Fatty
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
		Galactocele
Pituitary gland		Adenoma, Nos
		Angiectasis
Spleen		Hematopoiesis
Stomach		Necrosis, Focal
Thyroid		C-Cell Carcinoma
Uterus		Endometrial Stromal Polyp
		Thrombosis, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_636

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Spleen		Fibrosis, Focal
Thymus		Atrophy, Nos
		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
	Head	Sarcoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_637

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos Pigmentation, Nos
Mammary gland		Cystic Ducts Fibroadenoma Galactocele
Pituitary gland		Adenoma, Nos Cyst, Hemorrhagic Cyst, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis Hyperkeratosis
Thyroid		C-Cell Carcinoma
Trachea		C-Cell Carcinoma, Invasive
Unspecified	Multiple Organs Nos	C-Cell Carcinoma, Metastatic
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_638

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Lymphangiectasis
Mammary gland		Cystic Ducts
		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_639

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos

Lung

Mammary gland

Inflammation, Chronic  
Cystic Ducts

Preputial gland

Spleen

Thyroid

Fibroadenoma

Carcinoma, Nos

Hematopoiesis

Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_640

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Intestine Large  
Kidney

Colon

Parasitism  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Congestion, Nos

Bile Duct

Fibrosis  
Focal Cellular Change  
Hepatitis, Toxic

Bile Duct

Hyperplasia, Nos  
Infarct, Nos

Bile Duct

Inflammation, Chronic  
Inflammation, Chronic

Lung  
Mammary gland  
Pancreas  
Stomach

Cystic Ducts  
Atrophy, Focal  
Acanthosis

Unspecified  
Uterus

Multiple Organs Nos

Hyperkeratosis  
Leukemia, Monocytic  
Hydrometra

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 5\_641

TRT#: 5

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Terminal Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Small	Mesentery Nos	Periarteritis
Kidney	Cortex	Cyst, Nos
		Inflammation, Chronic
		Mineralization
Liver	Tubule	Pigmentation, Nos
		Granuloma, Nos
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Inflammation, Chronic
Mammary gland		Abscess, Nos
		Adenoma, Nos
		Cystic Ducts
		Hyperplasia, Diffuse
Pituitary gland		Angiectasis
Preputial gland		Carcinoma, Nos
		Cystic Ducts
Skin		Abscess, Nos
	Tail	Cyst, Epidermal Inclusion
Spleen		Hemosiderosis
Thyroid		Hyperplasia, C Cell
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_642

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Metamorphosis, Fatty  
Inflammation, Chronic Focal  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Pigmentation, Nos

Lung

Mammary gland

Inflammation, Chronic  
Fibroadenoma

Pituitary gland

Galactocele

Thyroid

Unspecified

Multiple Organs Nos

Angiectasis

Pigmentation, Nos

C-Cell Adenoma

Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_643

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hemorrhage

Hyperplasia, Focal

Pheochromocytoma

Heart

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Inflammation, Chronic

Tubule

Pigmentation, Nos

Liver

Necrosis, Focal

Lung

Inflammation, Chronic

Mammary gland

Cystic Ducts

Pituitary gland

Angiectasis

Spleen

Hemosiderosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_644

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change
	Bile Duct	Hyperplasia, Nos Neoplastic Nodule Pigmentation, Nos Inflammation, Chronic
Lung	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Lymph node		Fibroadenoma Hyperplasia, Diffuse
Mammary gland		Ectopia
Pancreas		Hemosiderosis
Spleen		Leukemia, Monocytic
Unspecified	Multiple Organs Nos	Cyst, Nos
Uterus	Endometrium	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_645

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Granuloma, Nos Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland	Mesenteric Lymph Node	Pigmentation, Nos Adenocarcinoma, Nos Cystic Ducts Fibroadenoma Galactocele
Pituitary gland		Angiectasis Hemorrhage
Spleen		Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_646

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Metamorphosis, Fatty Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland	Mesenteric Lymph Node	Pigmentation, Nos
Pituitary gland		Galactocele Angiectasis Cyst, Hemorrhagic Cyst, Nos
Unspecified	Multiple Organs Nos	Pigmentation, Nos Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_647

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Inflammation, Chronic

Liver  
Lung  
Lymph node  
Mammary gland  
Pancreas  
Thyroid

Mesenteric Lymph Node

Hyperplasia, Reticulum Cell  
Fibroadenoma  
Atrophy, Focal  
Cyst, Follicular Nos  
Hyperplasia, C Cell

Unspecified  
Uterus

Multiple Organs Nos

Leukemia, Monocytic  
Acanthosis  
Cyst, Nos  
Hyperkeratosis  
Squamous Cell Papilloma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_648

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenocarcinoma, Nos
		Fibroadenoma
Ovary		Cyst, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_649

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Pituitary gland		Hyperplasia, Focal
Spleen		Hematopoiesis
		Hemosiderosis
Unspecified	Axilla	Fibrosarcoma
	Multiple Organs Nos	Fibrosarcoma, Invasive
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_650

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Colon	Inflammation, Acute Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Angiectasis
		Focal Cellular Change
		Metamorphosis, Fatty
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Adenoma, Nos
		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Angiectasis
Skin	Eyelid Nos	Abscess, Nos
Spleen	Follicles	Atrophy, Nos
		Pigmentation, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
		Necrosis, Focal
Thyroid		C-Cell Adenoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_651

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Degeneration, Nos
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
Thymus		Hyperplasia, Epithelial
		Hyperplasia, Reticulum Cell
Unspecified	Abdominal Cavity	Lipoma
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_652

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Kidney		Inflammation, Chronic Mineralization
Liver		Focal Cellular Change Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts Fibroadenoma Galactocele
Thyroid		Follicular-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_653

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Anterior Chamber	Empyema
	Cornea	Inflammation, Chronic Diffuse
	Cornea	Necrosis, Focal
Heart	Myocardium Nos	Degeneration, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Ovary		Cyst, Follicular Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
		Necrosis, Focal
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_654

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Small	Jejunum	Mucinous Cystadenocarcinoma
Kidney		Fibrosis, Diffuse
		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Chronic
Lymph node	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
		Angiectasis
Spleen		Hematopoiesis
		Hemosiderosis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_655

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney	Cortex	Cyst, Nos
		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Ovary		Cyst, Nos
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Spleen		Fibrosis, Focal
Thymus		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_656

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Brain	Cerebellum Nos	Carcinoma, Nos, Invasive
Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Granuloma, Nos
		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Carcinoma, Nos
Spleen		Hemosiderosis
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Pigmentation, Nos
Vagina		Abscess, Nos
Zymbal gland		Cystic Ducts

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_657

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Mammary gland		Cystic Ducts
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_658

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos Metamorphosis, Fatty Necrosis, Focal Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
Pituitary gland		Angiectasis
Spleen		Pigmentation, Nos
Uterus		Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_659

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal Pheochromocytoma
Eye		Cataract
Heart	Retina	Degeneration, Nos
Intestine Large	Myocardium Nos	Inflammation, Chronic Focal
	Cecum, Colon	Hemorrhage
	Cecum, Colon	Necrosis, Focal
Kidney		Hyperplasia, Tubular Cell
		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
		Inflammation, Chronic Diffuse
		Ulcer, Perforated
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_660

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic

Liver

Tubule  
Capsule

Pigmentation, Nos  
Granuloma, Foreign Body  
Granuloma, Nos

Lung  
Lymph node  
Mammary gland

Mediastinal Lymph Node

Metamorphosis, Fatty  
Metaplasia, Squamous  
Pigmentation, Nos

Pituitary gland  
Stomach

Fibroadenoma  
Galactocele  
Hyperplasia, Nos

Thyroid  
Zymbal gland

Adenoma, Nos  
Acanthosis  
Hyperkeratosis  
Necrosis, Focal  
Ulcer, Perforated  
C-Cell Carcinoma  
Cystic Ducts

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_661

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Inflammation, Chronic Focal
		Necrosis, Focal
Thyroid		Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_662

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Cecum, Colon	Parasitism
Kidney		Inflammation, Chronic
		Mineralization
Liver	Tubule	Pigmentation, Nos
		Focal Cellular Change
		Granuloma, Nos
		Hemorrhage
Lung		Pigmentation, Nos
		Inflammation, Chronic
		Inflammation, Interstitial
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Adenocarcinoma, Nos
		Fibroadenoma
Pituitary gland		Angiectasis
Spleen		Hematopoiesis
		Hemosiderosis
Thymus	Lymphocytes	Thymoma, Benign
Thyroid		C-Cell Adenoma
		Follicular-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_663

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Metamorphosis, Fatty  
Inflammation, Chronic Focal  
Inflammation, Chronic  
Mineralization

Lung  
Lymph node

Tubule

Pigmentation, Nos  
Inflammation, Chronic  
Hyperplasia, Reticulum Cell  
Pigmentation, Nos

Parathyroid gland  
Pituitary gland

Mesenteric Lymph Node  
Pancreatic Lymph Node

Hyperplasia, Nos  
Adenoma, Nos  
Angiectasis

Spleen  
Uterus

Cervix Uteri  
Cervix Uteri

Hemosiderosis  
Acanthosis  
Hyperkeratosis  
Carcinoma, Nos

Zymbal gland

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_664

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Eye

Cortex Nos

Metamorphosis, Fatty

Heart

Retina

Degeneration, Nos

Kidney

Myocardium Nos

Inflammation, Chronic Diffuse

Liver

Inflammation, Chronic

Lung

Mineralization

Lymph node

Mesenteric Lymph Node

Congestion, Nos

Spleen

Pneumonia, Aspiration

Thyroid

Hyperplasia, Reticulum Cell

Hematopoiesis

Hemosiderosis

C-Cell Adenoma

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_665

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
Liver		Congestion, Nos Granuloma, Nos Hyperplasia, Nos Metamorphosis, Fatty
	Bile Duct	Inflammation, Chronic
Lung		Hyperplasia, Reticulum Cell
Lymph node	Mesenteric Lymph Node	Pigmentation, Nos
	Mediastinal Lymph Node	Cystic Ducts Fibroadenoma
Mammary gland		Adenoma, Nos
Pituitary gland		Hemosiderosis
Spleen		Inflammation, Chronic Diffuse
Stomach		Ulcer, Perforated

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_666

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Brain	Cerebrum	Abscess, Nos
Heart		Sarcoma, Nos
Kidney		Congestion, Nos
		Inflammation, Chronic
Liver		Inflammation, Acute Focal
		Necrosis, Focal
Lung		Inflammation, Chronic
		Sarcoma, Nos, Metastatic
Pancreas		Atrophy, Focal
Spleen		Hemosiderosis
Unspecified	Multiple Organs Nos	Hemorrhage
	Multiple Organs Nos	Sarcoma, Nos, Invasive
	Mediastinum Nos	Sarcoma, Nos, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_667

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Hyperplasia, Focal
Eye	Cortex Nos Retina	Metamorphosis, Fatty Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney	Cortex  Tubule	Cyst, Nos Inflammation, Chronic Mineralization Pigmentation, Nos Granuloma, Nos Inflammation, Chronic
Liver		Cystic Ducts Fibroadenoma
Lung		Angiectasis
Mammary gland		Hematopoiesis Embryonal Rest Inflammation, Chronic Focal
Pituitary gland		Necrosis, Focal
Spleen		C-Cell Carcinoma
Stomach		Cyst, Follicular Nos
Thyroid		

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_668

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Pigmentation, Nos
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Angiectasis
		Hyperplasia, Focal
Spleen		Hematopoiesis
		Hemosiderosis
Thyroid		C-Cell Adenoma
		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_669

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Inflammation, Chronic
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Cystic Ducts
Pituitary gland		Adenoma, Nos
Skin	Lower Leg	Basal-Cell Tumor
Spleen		Ectopia
Thyroid		C-Cell Carcinoma
		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_670

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pancreas		Ectopia
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
		Angiectasis
Thyroid		C-Cell Adenoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_671

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla Cortex Nos	Hyperplasia, Focal Hyperplasia, Focal Metamorphosis, Fatty
Eye	Retina	Cataract Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Fibrosis, Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule Bile Duct Bile Duct	Pigmentation, Nos Focal Cellular Change Hyperplasia, Nos Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Ovary		Granulosa-Cell Tumor
Pituitary gland		Angiectasis Hemorrhage
Stomach		Acanthosis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_672

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone	Sternum	Osteopetrosis
Brain	Cerebrum	Hemorrhage
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
Lung		Congestion, Nos
		Inflammation, Chronic
Lymph node	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland		Adenoma, Nos
Spleen		Hematopoiesis
		Hemosiderosis
Thyroid		Hyperplasia, C Cell
Uterus	Cervix Uteri	Acanthosis
	Cervix Uteri	Hyperkeratosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_673

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
		Neoplastic Nodule
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts
		Fibroadenoma
Spleen		Fibrosis, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_674

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Brain	Cerebrum	Astrocytoma
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Lung		Hyperplasia, Alveolar Epithelium
		Inflammation, Chronic
Lymph node	Pancreatic Lymph Node	Hyperplasia, Reticulum Cell
	Pancreatic Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Angiectasis
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_675

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Fibroadenoma
Ovary		Cyst, Nos
Pituitary gland		Angiectasis
Spleen		Hematopoiesis Hemosiderosis
Thyroid		C-Cell Adenoma
Unspecified	Diaphragm Nos	Hernia, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_676

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Esophagus

Kidney

Liver

Lung

Lymph node

Ovary

Pituitary gland

Tubule

Mandibular Lymph Node

Mesenteric Lymph Node

Hyperkeratosis

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Focal Cellular Change

Inflammation, Chronic

Hyperplasia, Lymphoid

Hyperplasia, Reticulum Cell

Sertoli-Cell Tumor

Ganglioneuroma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_677

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Eye	Retina	Degeneration, Nos
	Cornea	Inflammation, Chronic Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Cecum, Colon	Hemorrhage
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
		Neoplastic Nodule
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Thyroid		C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_678

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Adenoma, Nos Cystic Ducts Fibroadenoma Galactocele
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse
Unspecified	Multiple Organs Nos	Ulcer, Perforated Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_679

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Kidney	Cortex Nos	Metamorphosis, Fatty Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Pituitary gland		Adenoma, Nos Angiectasis
Skin	Axilla	Basal-Cell Carcinoma
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Endometrium	Hyperplasia, Papillary

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_680

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Unspecified		Fibroma
	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Serosa	Abscess, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_681

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
Liver		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
Lung		Congestion, Nos
		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_682

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Bone	Skull	Osteopetrosis
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
		Pigmentation, Nos
Lung		Granuloma, Nos
	Alveoli	Histiocytosis
		Inflammation, Acute Focal
Mammary gland		Adenoma, Nos
		Cystic Ducts
		Fibroadenoma
		Hyperplasia, Diffuse
Oral mucosa	Palate	Acanthosis
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_683

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney	Cortex	Cyst, Nos Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Inflammation, Chronic
Lung		Cystic Ducts
Mammary gland		Fibroadenoma
Pancreas		Ectopia
Parathyroid gland		Hyperplasia, Nos
Preputial gland		Carcinoma, Nos
Spleen		Hematopoiesis Hemosiderosis
		Lipoma
Stomach		Acanthosis
Thyroid		C-Cell Adenoma
Uterus	Cervix Uteri	Cyst, Nos
	Cervix Uteri	Inflammation, Acute Focal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_684

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Kidney

Cortex Nos

Metamorphosis, Fatty  
Inflammation, Chronic  
Mineralization

Liver  
Lung

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Hyperplasia, Alveolar Epithelium  
Inflammation, Chronic

Mammary gland

Cystic Ducts

Pituitary gland

Fibroadenoma

Adenoma, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_685

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Metamorphosis, Fatty
		Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
		Fibroadenoma
		Fibrosarcoma
		Galactocele
Pituitary gland		Adenoma, Nos
Unspecified	Diaphragm Nos	Hernia, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_686

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
Lung		Inflammation, Chronic
Mammary gland		Fibroadenoma
Pituitary gland		Angiectasis
Spleen		Hematopoiesis
		Hemosiderosis
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_687

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
	Bile Duct	Granuloma, Nos
		Hyperplasia, Nos
		Metamorphosis, Fatty
Lung		Inflammation, Chronic
		Metaplasia, Squamous
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic
		Necrosis, Nos
		Ulcer, Perforated
Thyroid		C-Cell Adenoma
		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_688

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Inflammation, Chronic

Tubule

Pigmentation, Nos

Liver

Granuloma, Nos

Lung

Metamorphosis, Fatty

Pancreas

Inflammation, Chronic

Uterus

Atrophy, Focal

Cervix Uteri

Cyst, Nos

Endometrium

Cyst, Nos

Cervix Uteri

Fibrosis

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_689

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Eye		Cataract
	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Angiectasis
		Cyst, Nos
		Hyperplasia, Focal
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_690

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Hepatitis, Toxic
Lung		C-Cell Carcinoma, Metastatic Inflammation, Chronic
Mammary gland		Cystic Ducts Fibroadenoma Galactocele
Pancreas		Atrophy, Diffuse
Pituitary gland		Adenoma, Nos Angiectasis
Preputial gland		Abscess, Nos
Stomach		Acanthosis
Thyroid		C-Cell Carcinoma
Trachea		C-Cell Carcinoma, Invasive
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus	Cervix Uteri	Fibrosis Pigmentation, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_691

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty Pheochromocytoma
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Granuloma, Nos Necrosis, Focal
Lung		Inflammation, Chronic Inflammation, Interstitial
Lymph node	Mesenteric Lymph Node Mandibular Lymph Node Mediastinal Lymph Node Mesenteric Lymph Node Mediastinal Lymph Node	Erythrophagocytosis Hyperplasia, Lymphoid Hyperplasia, Lymphoid Hyperplasia, Reticulum Cell Pigmentation, Nos
Mammary gland		Fibroadenoma Galactocele
Pituitary gland		Adenoma, Nos Hyperplasia, Focal
Spleen		Hematopoiesis
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_692

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Granuloma, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts Fibroadenoma
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Stomach		Acanthosis Hyperkeratosis Inflammation, Chronic Diffuse Ulcer, Perforated

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_693

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Metamorphosis, Fatty  
Inflammation, Chronic Diffuse  
Inflammation, Chronic  
Mineralization

Liver  
Lung  
Mammary gland

Tubule

Pigmentation, Nos  
Metamorphosis, Fatty  
Inflammation, Chronic  
Adenocarcinoma, Nos  
Cystic Ducts  
Fibroadenoma  
Galactocele

Ovary  
Pituitary gland  
Spleen

Cyst, Nos  
Angiectasis  
Hematopoiesis  
Hemosiderosis

Thyroid  
Uterus

Hyperplasia, C Cell  
Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_694

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Mammary gland		Cystic Ducts Fibroadenoma
		Hyperplasia, Diffuse
Stomach		Edema, Nos
		Inflammation, Chronic Diffuse
		Necrosis, Focal
Unspecified	Multiple Organs Nos	Leukemia, Myelomonocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_695

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Eye		Cataract
	Retina	Degeneration, Nos
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
Ovary		Granulosa-Cell Tumor
Pituitary gland		Carcinoma, Nos
Preputial gland		Carcinoma, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
Thyroid		C-Cell Carcinoma
Vagina		Inflammation, Acute

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_696

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Hepatitis, Toxic
Lung		Inflammation, Chronic
Mammary gland		Adenocarcinoma, Nos
		Cystic Ducts
		Hyperplasia, Diffuse
Pituitary gland		Cyst, Hemorrhagic
Spleen		Fibrosis, Focal
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_697

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pancreas		Atrophy, Diffuse
Pituitary gland		Adenoma, Nos
Thyroid		Follicular-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
Uterus		Hydrometra

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:09  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_698

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Focal
Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Eye		Cataract
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Cystic Ducts
		Fibroadenoma
		Hyperplasia, Diffuse
Parathyroid gland		Ectopia
		Hyperplasia, Nos
Pituitary gland		Angiectasis
Spleen		Fibrosis, Focal
		Hematopoiesis
		Hemosiderosis
Thymus		Carcinoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_699

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Focal
Bone	Skull	Osteopetrosis
	Sternum	Osteopetrosis
Intestine Large	Colon	Necrosis, Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
		Pigmentation, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Hyperplasia, Nos
Parathyroid gland		Hyperplasia, Nos
Unspecified	Mediastinum Nos	Congenital Malformation, Nos
Zymbal gland		Keratoacanthoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_700

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Myocardium Nos

Liver

Lung

Mammary gland

Preputial gland

Thyroid

Unspecified

Tubule

Multiple Organs Nos

Cortical Adenoma

Inflammation, Chronic Focal

Inflammation, Chronic

Mineralization

Pigmentation, Nos

Focal Cellular Change

Hepatitis, Toxic

Inflammation, Chronic

Cystic Ducts

Galactocele

Carcinoma, Nos

Hyperplasia, C Cell

Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 5\_701

TRT#: 5

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

**OBSERVATIONS**

Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Pituitary gland		Adenoma, Nos Angiectasis
Spleen		Hematopoiesis Hemosiderosis
Thyroid		Follicular-Cell Adenoma
Unspecified	Neck	Fibroma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_702

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic  
Mineralization

Lung

Tubule

Pigmentation, Nos  
Granuloma, Nos  
Inflammation, Chronic

Mammary gland

Fibroadenoma

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_703

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Diffuse
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Necrosis, Focal
Lung		Inflammation, Chronic
Mammary gland		Cystic Ducts Fibroadenoma
Spleen		Hemorrhage
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_704

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Ovary		Granulosa-Cell Carcinoma
Pituitary gland		Adenoma, Nos
Uterus		Endometrial Stromal Polyp

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:09

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_705

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic Mineralization
Liver	Tubule	Pigmentation, Nos Focal Cellular Change Metamorphosis, Fatty Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Adenocarcinoma, Nos
Pituitary gland		Adenoma, Nos
Preputial gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_706

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Intestine Small  
Kidney

Colon  
Ileum, Ileum

Parasitism  
Sarcoma, Nos  
Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Granuloma, Nos  
Metamorphosis, Fatty

Lung  
Lymph node

Mediastinal Lymph Node  
Mesenteric Lymph Node

Inflammation, Chronic  
Hemorrhage  
Hyperplasia, Lymphoid

Mammary gland  
Pancreas  
Spleen  
Thyroid

Cystic Ducts  
Atrophy, Focal  
Hematopoiesis  
Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_707

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Bone	Vertebra	Osteosarcoma
Kidney		Congestion, Nos
		Inflammation, Chronic
		Mineralization
Liver		Metamorphosis, Fatty
Lymph node	Mesenteric Lymph Node	Hemorrhage
Unspecified	Multiple Organs Nos	Osteosarcoma, Metastatic
Zymbal gland		Cystic Ducts

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_708

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos Focal Cellular Change
Liver		Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
Lung		Hemorrhage
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
	Mediastinal Lymph Node	Adenoma, Nos Cystic Ducts Hyperplasia, Nos
Mammary gland		Adenoma, Nos
		C-Cell Adenoma
Pituitary gland		Transitional-Cell Papilloma
Thyroid		
Urinary bladder		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_709

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Inflammation, Chronic  
Mineralization

Liver

Tubule

Pigmentation, Nos  
Focal Cellular Change  
Pigmentation, Nos

Lung

Lymph node

Mammary gland

Mesenteric Lymph Node

Inflammation, Chronic  
Hyperplasia, Reticulum Cell

Salivary gland

Parotid Gland Nos

Cystic Ducts  
Fibroadenoma  
Hyperplasia, Focal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_710

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Hepatitis, Toxic
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Hyperplasia, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Diffuse
Thyroid		Necrosis, Focal
		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Hyperplasia, C Cell
		Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:10  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_711

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Esophagus		Hyperkeratosis
Kidney		Inflammation, Chronic
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change
		Granuloma, Nos
	Bile Duct	Inflammation, Chronic
Lung		Inflammation, Chronic
Lymph node		Hyperplasia, Lymphoid
	Mandibular Lymph Node	Hyperplasia, Reticulum Cell
	Mesenteric Lymph Node	Lymphangiectasis
	Mandibular Lymph Node	Pigmentation, Nos
	Mediastinal Lymph Node	Angiectasis
Pituitary gland		Hyperplasia, Focal
Spleen		Hematopoiesis
Zymbal gland		Carcinoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_712

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Kidney		Inflammation, Chronic Mineralization
Liver		Metamorphosis, Fatty Necrosis, Focal
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Preputial gland		Carcinoma, Nos
Spleen		Hematopoiesis

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_713

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver		Metamorphosis, Fatty
		Necrosis, Focal
		Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Stomach		Acanthosis
		Hyperkeratosis
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_714

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Lymphoid
	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
	Mediastinal Lymph Node	Pigmentation, Nos
Mammary gland		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal
Thyroid		Follicular-Cell Adenoma
Unspecified	Axilla	Abscess, Nos
Uterus		Endometrial Stromal Polyp

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_715

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney

Cortex Nos  
Myocardium Nos

Metamorphosis, Fatty  
Inflammation, Chronic Focal  
Inflammation, Chronic  
Mineralization

Liver  
Lung  
Mammary gland

Hepatitis, Toxic  
Inflammation, Chronic  
Cystic Ducts

Pancreas  
Pituitary gland  
Thyroid

Islets

Hyperplasia, Nos  
Islet-Cell Adenoma  
Pigmentation, Nos  
Hyperplasia, C Cell

Unspecified  
Uterus

Multiple Organs Nos  
Cervix Uteri

Leukemia, Monocytic  
Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_716

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Intestine Large  
Kidney

Myocardium Nos  
Colon

Cortical Adenoma  
Inflammation, Chronic Diffuse  
Parasitism  
Inflammation, Chronic  
Mineralization

Lung  
Lymph node

Tubule

Pigmentation, Nos  
Inflammation, Chronic

Mammary gland

Mediastinal Lymph Node  
Mediastinal Lymph Node

Congestion, Nos  
Pigmentation, Nos

Pancreas  
Salivary gland  
Thyroid

Cystic Ducts  
Fibroadenoma  
Galactocele

Unspecified  
Uterus

Multiple Organs Nos

Ectopia  
Sarcoma, Nos  
Hyperplasia, C Cell  
Leukemia, Monocytic  
Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_717

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Kidney

Congestion, Nos

Lung

Congestion, Nos

Lymph node

Mandibular Lymph Node

Hyperplasia, Lymphoid

Spleen

Hemosiderosis

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

**ANIMAL ID:** 5\_718

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Tubule

Inflammation, Chronic

Liver

Pigmentation, Nos

Focal Cellular Change

Granuloma, Nos

Lymph node

Mesenteric Lymph Node

Pigmentation, Nos

Hyperplasia, Reticulum Cell

Mammary gland

Cystic Ducts

Pituitary gland

Angiectasis

Spleen

Hemosiderosis

Thyroid

C-Cell Carcinoma

Unspecified

Multiple Organs Nos

C-Cell Carcinoma, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:10  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_719

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Bone marrow		Hypoplasia, Nos
Brain	Cerebrum	Carcinoma, Nos, Invasive
	Medulla Oblongata Nos	Carcinoma, Nos, Invasive
Esophagus		Hyperkeratosis
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
	Tubule	Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Nos
	Bile Duct	Inflammation, Chronic
		Necrosis, Focal
Lung		Granuloma, Nos
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hyperplasia, Reticulum Cell
Mammary gland		Cystic Ducts
Pituitary gland		Carcinoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:10  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_720

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Focal
Brain	Cerebellum Nos	Hemorrhage
	Cerebellum Nos	Necrosis, Focal
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
		Mineralization
Liver	Tubule	Pigmentation, Nos
		Focal Cellular Change
		Granuloma, Nos
Lung		Leukemia, Monocytic
Lymph node	Mesenteric Lymph Node	Inflammation, Chronic
Mammary gland		Hyperplasia, Reticulum Cell
		Cystic Ducts
		Fibroadenoma
Pituitary gland		Adenoma, Nos
Stomach		Acanthosis
		Hyperkeratosis
		Inflammation, Chronic Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C60253A

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Asbestos, amosite

CAS Number: 12172-73-5

Date Report Requested: 10/26/2014

Time Report Requested: 15:29:10

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 5\_721

TRT#: 5

SEX: Female

DAY ON TEST:

DOSE: 10000 PPM

DISP: Moribund Sacrifice

HISTO:

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Metamorphosis, Fatty
Bone marrow		Hyperplasia, Nos
Brain	Cerebrum	Hemorrhage
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Intestine Large	Submucosa, Colon	Fibrosis, Focal
Kidney		Inflammation, Chronic Mineralization
	Tubule	Pigmentation, Nos
Liver		Focal Cellular Change Granuloma, Nos
Lung		Carcinoma, Nos, Metastatic Inflammation, Chronic
Mammary gland		Carcinoma, Nos Fibroadenoma
Pituitary gland		Adenoma, Nos Hemorrhage
Spleen		Fibrosis, Focal Hematopoiesis Hemosiderosis
Stomach		Inflammation, Chronic Diffuse Necrosis, Focal
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_722

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Mixed Tumor, Invasive

Kidney

Necrosis, Nos

Liver

Inflammation, Chronic

Lung

Mixed Tumor, Malignant

Lymph node

Mesenteric Lymph Node

Pigmentation, Nos

Spleen

Mediastinal Lymph Node

Inflammation, Chronic

Stomach

Mediastinal Lymph Node

Hyperplasia, Reticulum Cell

Thyroid

Pigmentation, Nos

Uterus

Hematopoiesis

Acanthosis

Hyperkeratosis

Hyperplasia, C Cell

Hydrometra

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C60253A  
**Test Type:** Long-Term  
**Route:** Dosed-Feed  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Asbestos, amosite  
**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 15:29:10  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 5\_723

**TRT#:** 5  
**DOSE:** 10000 PPM

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:**  
**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cortical Adenoma
	Cortex Nos	Metamorphosis, Fatty
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Inflammation, Chronic Focal
Kidney		Inflammation, Chronic
	Tubule	Mineralization
Liver		Pigmentation, Nos
		Metamorphosis, Fatty
Lung		Pigmentation, Nos
		Alveolar/Bronchiolar Carcinoma
Lymph node	Pancreatic Lymph Node	Inflammation, Chronic
Mammary gland		Hyperplasia, Reticulum Cell
Pituitary gland		Fibroadenoma
		Adenoma, Nos
Spleen	Follicles	Angiectasis
		Atrophy, Nos
		Fibrosis, Diffuse
Stomach		Hemosiderosis
		Acanthosis
		Inflammation, Chronic Focal
Thyroid		Ulcer, Perforated
Unspecified	Multiple Organs Nos	C-Cell Carcinoma
Zymbal gland		Leukemia, Monocytic
		Cystic Ducts

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_724

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Kidney

Lung

Ovary

Uterus

Calcification, Nos

Congestion, Nos

Inflammation, Chronic

Cyst, Nos

Endometrial Stromal Polyp

Hydrometra

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C60253A

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Asbestos, amosite

**CAS Number:** 12172-73-5

**Date Report Requested:** 10/26/2014

**Time Report Requested:** 15:29:10

**First Dose M/F:** NA / NA

**Lab:** NA

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**ANIMAL ID:** 5\_725

**TRT#:** 5

**SEX:** Female

**DAY ON TEST:**

**DOSE:** 10000 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Cortex Nos

Metamorphosis, Fatty

Heart

Myocardium Nos

Inflammation, Chronic Focal

Kidney

Inflammation, Chronic

Mineralization

Liver

Focal Cellular Change

Metamorphosis, Fatty

Lung

Inflammation, Chronic

Pancreas

Atrophy, Focal

Stomach

Acanthosis

Hyperkeratosis

Inflammation, Chronic Focal

Thyroid

Ulcer, Perforated

C-Cell Adenoma

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**PRIMARY CAUSE OF DEATH**

-

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**\*\* END OF REPORT \*\***