

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

**C Number:** C55936

**Cage Range:** All

**Date Range:** All

**Reasons For Removal:** All

**Removal Date Range:** All

**Treatment Groups:** All

**Study Gender:** Male

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_001

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Pheochromocytoma
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Pancreas	Acinus	Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Adenoma, Nos
		Atrophy, Nos
		Tissue Examined
Prostate		Inflammation, Chronic Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_002

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Pheochromocytoma
Blood vessel	Aorta Nos	Mineralization
	Pulmonary Artery Nos	Mineralization
Bone marrow		Hyperplasia, Hematopoietic
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Skin	Tail	Hyperplasia, Epithelial
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

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**ANIMAL ID:** 1\_003

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain	Cranial Nerve Nos	Neurilemoma
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver		Hemorrhage
		Inflammation, Chronic Focal
Pancreas		Inflammation, Chronic Focal
Preputial gland		Tissue Not Examined
Spleen		Congestion, Nos
Testis		Hyperplasia, Interstitial Cell
Thymus		Hemorrhage
Trachea	Submucosa	Inflammation, Acute Focal

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

**ANIMAL ID:** 1\_004

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone		Cyst, Nos
		Necrosis, Focal
Bone marrow		Hyperplasia, Hematopoietic
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Hepatocytes	Degeneration, Nos
		Hematopoiesis
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Pancreas		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Spleen		Hematopoiesis
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Hyperplasia, Interstitial Cell
Thymus		Involution, Nos
Unspecified	Abdominal Cavity	Inflammation, Chronic Focal

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_005

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Lung		Hemorrhage
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Intermedia	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Salivary gland		Hyperplasia, Intraductal
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_006

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
	Medulla	Pheochromocytoma, Malignant
Bone marrow		Hyperplasia, Granulocytic
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Pheochromocytoma, Metastatic
Lymph node	Mandibular Lymph Node	Cyst, Nos
	Hepatic Lymph Node	Hemorrhage
Pancreas	Acinus	Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Preputial gland		Adenoma, Nos
		Atrophy, Nos
		Tissue Examined
Salivary gland		Hyperplasia, Intraductal
Seminal vesicle		Atrophy, Nos
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		Cyst, Nos
Unspecified	Multiple Organs Nos	Mineralization

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_007

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Hyperplasia, Granulocytic
Epididymis		Hyperplasia, Epithelial
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
Lung		Sarcoma, Nos, Metastatic
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Hyperplasia, Nos
		Tissue Examined
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Hyperplasia, Epithelial
		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Face	Sarcoma, Nos

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_008

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Pheochromocytoma
Bone		Fibrous Osteodystrophy
Heart		Inflammation, Chronic Focal
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Pancreas	Acinus	Atrophy, Focal
		Periarteritis
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Posterior Lobe	Gliosis
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Examined
Prostate		Hyperplasia, Epithelial
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		Cyst, Nos
Unspecified	Multiple Organs Nos	Mineralization
	Abdominal Cavity	Periarteritis

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_009

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Congestion, Nos
Lymph node	Mandibular Lymph Node	Congestion, Nos
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
		Mineralization
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_010

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Cyst, Nos
		Nephropathy
Liver	Bile Duct	Pigmentation, Nos
		Hyperplasia, Focal
Nasal cavity		Peliosis Hepatis
		Infection, Fungal
Pancreas	Acinus	Inflammation, Acute Focal
		Atrophy, Focal
Pituitary gland	Posterior Lobe	Edema, Nos
	Intermedia	Gliosis
Preputial gland		Hyperplasia, Focal
		Atrophy, Nos
Prostate		Tissue Examined
Skin		Hyperplasia, Epithelial
Testis		Keratoacanthoma
		Atrophy, Focal
Thyroid		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Follicular-Cell Adenoma
		Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_011

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Dilatation, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Tissue Examined
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_012

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Bone marrow		Hyperplasia, Granulocytic
Eye	Crystalline Lens	Degeneration, Nos
	Cornea	Inflammation, Acute Focal
	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Necrosis, Focal
Lung		Alveolar Macrophages
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Salivary gland		Inflammation, Chronic Focal
Seminal vesicle		Atrophy, Nos
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Hyperplasia, Interstitial Cell
Thymus		Involution, Nos
Zymbal gland		Carcinoma, Nos

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_013

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
	Medulla	Hyperplasia, Nos
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
	Hepatocytes	Nuclear Enlargement
Nasal cavity		Inflammation, Chronic Focal
Pancreas	Acinus	Atrophy, Focal
		Inflammation, Chronic Focal
Parathyroid gland		Hyperplasia, Nos
Preputial gland		Atrophy, Nos
		Inflammation, Chronic Focal
		Tissue Examined
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Mineralization
	Abdominal Cavity	Periarteritis

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

**ANIMAL ID:** 1\_014

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Posterior Lobe	Gliosis
Preputial gland		Atrophy, Nos
		Inflammation, Chronic Focal
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Skeletal muscle	Perineum	Hemorrhage
Spleen		Hematopoiesis
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		C-Cell Adenoma

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_015

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Fibrosis, Myelo
Heart		Inflammation, Chronic Focal
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
Lung		Hyperplasia, Alveolar Epithelium
Mammary gland		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_016

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Alveolar Macrophages
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Spleen		Necrosis, Focal
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_017

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla	Degeneration, Nos Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney	Pelvis	Hyperplasia, Epithelial Nephropathy
Liver	Hepatocytes Hepatocytes Bile Duct	Clear-Cell Change Cytoplasmic Change, Basophilic Hyperplasia, Focal
Lymph node	Mandibular Lymph Node	Hyperplasia, Plasma Cell
Nasal cavity		Inflammation, Acute Focal
Pancreas	Acinus	Atrophy, Focal Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos Tissue Examined
Prostate		Hyperplasia, Epithelial
Spleen		Congestion, Nos
Testis		Atrophy, Focal Interstitial-Cell Tumor

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_018

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Cyst, Nos
	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone		Necrosis, Focal
Bone marrow		Cyst, Nos
Brain		Hydrocephalus, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Lung		Hemorrhage
Lymph node	Mesenteric Lymph Node	Edema, Nos
	Mandibular Lymph Node	Hyperplasia, Plasma Cell
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Infection, Fungal
		Inflammation, Acute Focal
Pancreas	Acinus	Atrophy, Focal
		Inflammation, Chronic Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
	Forestomach	Ulcer, Nos
Testis		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

---

**ANIMAL ID:** 1\_018

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Thymus

Involution, Nos

Urinary bladder

Submucosa

Inflammation, Chronic Focal

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_019

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver		Angiectasis
	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
		Hematopoiesis
	Bile Duct	Hyperplasia, Focal
Lung		Alveolar Macrophages
		Inflammation, Interstitial
Lymph node	Thoracic Lymph Node	Hyperplasia, Nos
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Inflammation, Suppurative
Seminal vesicle		Atrophy, Nos
Skin		Keratoacanthoma
Spleen		Hematopoiesis
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

**ANIMAL ID:** 1\_020

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Lung		Hemorrhage
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Salivary gland		Hyperplasia, Intraductal
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Mediastinum Nos	Hemorrhage
	Multiple Organs Nos	Lymphoma, Nos-Malignant

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_021

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Hypertrophy, Nos
	Pulmonary Artery Nos	Mineralization
Bone marrow		Hyperplasia, Granulocytic
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Inflammation, Interstitial
Lymph node	Thoracic Lymph Node	Hyperplasia, Plasma Cell
Nasal cavity		Hemorrhage
Pancreas		Inflammation, Chronic Focal
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Hyperplasia, Epithelial
		Inflammation, Chronic Focal
Spleen		Hematopoiesis
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Cyst, Nos
		Hyperplasia, C Cell
Unspecified		Fibroma
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

**ANIMAL ID:** 1\_022

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Hyperplasia, Tubular Cell
		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Testis		Atrophy, Diffuse
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		C-Cell Adenoma
Unspecified	Hip	Cyst, Epidermal Inclusion

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:05

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_023

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Hydrocephalus, Nos
		Pigmentation, Nos
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
	Pelvis	Inflammation, Suppurative
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Hemorrhage
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
		Inflammation, Chronic Focal
		Pigmentation, Nos
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Atrophy, Nos
		Inflammation, Suppurative
Prostate		Tissue Examined
		Hyperplasia, Epithelial
		Inflammation, Suppurative
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Edema, Nos
	Forestomach	Hyperplasia, Epithelial
	Forestomach	Inflammation, Acute Focal
	Glandular Stomach	Ulcer, Nos
Testis		Hyperplasia, Interstitial Cell

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

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**ANIMAL ID:** 1\_023

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Thymus

Thyroid

Urinary bladder

Mucosa

Submucosa

Interstitial-Cell Tumor

Involution, Nos

C-Cell Adenoma

Hyperplasia, Epithelial

Inflammation, Chronic Focal

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

**ANIMAL ID:** 1\_024

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Lung		Alveolar Macrophages
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Testis		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:05

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

**Lab:** NA

**ANIMAL ID:** 1\_025

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
Liver	Hepatocytes Bile Duct	Pigmentation, Nos Cytoplasmic Change, Basophilic Hyperplasia, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos Hyperplasia, Nos Inflammation, Chronic Focal
Testis		Tissue Examined Atrophy, Diffuse Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_026

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Pheochromocytoma
Bone marrow		Fibrosis, Myelo
Brain		Granular-Cell Tumor, Benign
Heart	Atrium	Inflammation, Chronic Focal Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney		Cyst, Nos Hyperplasia, Epithelial Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
Nasal cavity		Thrombosis, Nos
Oral mucosa	Palate Nos	Hyperplasia, Epithelial
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Intermedia	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos Tissue Examined
Prostate		Hyperplasia, Epithelial
Seminal vesicle		Atrophy, Nos
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Diffuse Hyperplasia, Interstitial Cell
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 1\_027

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain		Hydrocephalus, Nos
Eye	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Inflammation, Chronic Focal
Mammary gland		Hyperplasia, Cystic
Pancreas		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Spleen		Congestion, Nos
Stomach	Forestomach	Hyperplasia, Epithelial

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_028

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Kidney		Congestion, Nos
		Hyperplasia, Tubular Cell
		Nephropathy
		Pigmentation, Nos
Liver		Hematopoiesis
	Bile Duct	Hyperplasia, Focal
Lymph node	Mandibular Lymph Node	Hyperplasia, Plasma Cell
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
		Inflammation, Chronic Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Salivary gland		Inflammation, Chronic Focal
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Face	Sarcoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 1\_029

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Eye	Retina	Atrophy, Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Mammary gland		Hyperplasia, Cystic
Oral mucosa	Palate Nos	Hyperplasia, Epithelial
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Tissue Examined
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_030

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Pancreas		Pigmentation, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Hyperplasia, Epithelial
		Inflammation, Suppurative
Seminal vesicle		Atrophy, Nos
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
		Mineralization
Thyroid		C-Cell Adenoma
Tongue		Squamous Cell Papilloma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Urinary bladder	Mucosa	Inflammation, Acute Focal
	Submucosa	Inflammation, Acute Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_031

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Tubular-Cell Adenoma
	Hepatocytes	Clear-Cell Change
	Bile Duct	Cytoplasmic Change, Basophilic
		Hyperplasia, Focal
Lung		Alveolar Macrophages
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Hyperplasia, Nos
		Tissue Examined
Spleen		Hematopoiesis
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Cyst, Follicular Nos
Unspecified	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 1\_032

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Lung		Alveolar/Bronchiolar Adenoma
Lymph node	Thoracic Lymph Node	Pigmentation, Nos
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Mesothelioma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_033

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Hemorrhage
		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney		Mineralization
		Nephropathy
		Pigmentation, Nos
Liver		Hematopoiesis
	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Nasal cavity		Inflammation, Acute Focal
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Intermedia	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Carcinoma, Nos
		Tissue Examined
Spleen		Hematopoiesis
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		C-Cell Adenoma
Unspecified	Mediastinum Nos	Hemorrhage

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_034

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Lymph node	Mandibular Lymph Node	Cyst, Nos
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Cyst, Nos
		Tissue Examined
Prostate		Hyperplasia, Epithelial
Seminal vesicle		Atrophy, Nos
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_035

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Bone		Fibrous Osteodystrophy
Heart		Inflammation, Chronic Focal
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lymph node	Mesenteric Lymph Node	Edema, Nos
Pancreas	Acinus	Hyperplasia, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Hyperplasia, Nos
		Tissue Examined
Seminal vesicle		Dilatation, Nos
Skin	Groin	Squamous Cell Papilloma
Stomach	Glandular Stomach	Mineralization
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Follicular-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_036

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
	Artery Nos	Periarteritis
Eye	Cornea	Inflammation, Acute Focal
	Nasolacrimal Duct	Inflammation, Acute Focal
	Sclera	Mineralization
	Cornea	Vascularization
Harderian gland	Harderian Gland	Pigmentation, Nos
Heart		Inflammation, Chronic Focal
Intestine Large	Rectum	Parasitism
Kidney	Pelvis	Cyst, Nos
		Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Inflammation, Chronic Focal
Skin	Hip	Basal-Cell Tumor
	Back	Squamous Cell Papilloma
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 1\_037

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Medulla	Degeneration, Nos Pheochromocytoma
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Hepatocytes Hepatocytes Bile Duct	Pigmentation, Nos Clear-Cell Change Cytoplasmic Change, Basophilic
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Hyperplasia, Nos
Prostate		Tissue Examined
Spleen		Hyperplasia, Epithelial
Stomach	Glandular Stomach	Hematopoiesis
Testis		Atrophy, Focal
Thyroid		Atrophy, Focal
Unspecified	Abdominal Cavity	Interstitial-Cell Tumor Hyperplasia, C Cell Mesothelioma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 1\_038

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain		Hemorrhage
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Lung		Hemorrhage
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Spleen		Adhesion, Nos
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_039

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial Nephropathy
Liver	Hepatocytes Bile Duct	Cytoplasmic Change, Basophilic Hyperplasia, Focal Peliosis Hepatis
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos Tissue Examined
Salivary gland		Cytoplasmic Change, Basophilic
Seminal vesicle		Atrophy, Nos
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Hip	Cyst, Epidermal Inclusion
	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_040

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Cortex Nos Medulla	Angiectasis Hyperplasia, Focal Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial Nephropathy Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Inflammation, Acute Focal
Oral mucosa	Palate Nos	Hyperplasia, Epithelial
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos Tissue Examined
Prostate		Inflammation, Suppurative
Salivary gland		Hyperplasia, Intraductal
Seminal vesicle		Atrophy, Nos
Skin	Abdomen	Basal-Cell Tumor
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Mineralization
Testis		Atrophy, Diffuse Atrophy, Focal Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_041

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Bone		Fibrous Osteodystrophy
Heart		Inflammation, Chronic Focal
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Oral mucosa	Palate Nos	Hyperplasia, Epithelial
Pancreas	Acinus	Atrophy, Focal
		Periarteritis
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Inflammation, Suppurative
		Tissue Examined
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_042

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla Medulla	Hyperplasia, Focal Hyperplasia, Nos Pheochromocytoma
Bone		Fibrous Osteodystrophy
Heart		Inflammation, Chronic Focal
Intestine Large	Colon Rectum	Parasitism Parasitism
Kidney	Pelvis	Cyst, Nos Hyperplasia, Epithelial Nephropathy
Liver	Hepatocytes Bile Duct	Cytoplasmic Change, Basophilic Hyperplasia, Focal Peliosis Hepatis
Lung		Alveolar/Bronchiolar Carcinoma Hemorrhage
Lymph node	Mandibular Lymph Node Renal Lymph Node	Cyst, Nos Edema, Nos
Pancreas	Acinus	Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Preputial gland		Atrophy, Nos Tissue Examined
Salivary gland		Hyperplasia, Intraductal
Seminal vesicle		Atrophy, Nos
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal Interstitial-Cell Tumor
Thymus		Hyperplasia, Epithelial Involution, Nos
Thyroid		Cyst, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 1\_042

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_043

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Bone		Fibrous Osteodystrophy
Heart		Inflammation, Chronic Focal
Kidney		Cyst, Nos
		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Congestion, Nos
Pancreas	Acinus	Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Mineralization

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 1\_044

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Congestion, Nos
Blood vessel	Aortic Arch	Hemorrhage
Heart		Inflammation, Chronic Focal
Kidney		Congestion, Nos
	Pelvis	Hyperplasia, Epithelial
		Hyperplasia, Tubular Cell
		Nephropathy
Liver		Congestion, Nos
	Bile Duct	Hyperplasia, Focal
Lung		Alveolar Macrophages
		Osteosarcoma, Metastatic
Lymph node	Mesenteric Lymph Node	Hemorrhage
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Hemorrhage
Preputial gland		Atrophy, Nos
		Tissue Examined
Testis		Hyperplasia, Interstitial Cell
Thymus		Involution, Nos
Unspecified	Thoracic Cavity Nos	Osteosarcoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_045

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Nos
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Cyst, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Hyperplasia, Tubular Cell
		Nephropathy
Liver		Abnormal Curvature
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Lung		Hyperplasia, Alveolar Epithelium
Lymph node	Renal Lymph Node	Pigmentation, Nos
Pancreas		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_046

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Angiectasis
	Medulla	Hyperplasia, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Necrosis, Focal
Lung		Congestion, Nos
Mammary gland		Adenoma, Nos
		Hyperplasia, Cystic
Nasal cavity		Inflammation, Acute Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 1\_047

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Bone marrow		Hyperplasia, Granulocytic
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Tubular-Cell Adenocarcinoma
Liver	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lymph node	Thoracic Lymph Node	Pigmentation, Nos
Nasal cavity		Hemorrhage
Pancreas	Acinus	Cytoplasmic Change, Basophilic
		Inflammation, Chronic Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Salivary gland		Cytoplasmic Change, Basophilic
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_048

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Cyst, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart	Atrium	Hyperplasia, Epithelial
		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Lymph node	Renal Lymph Node	Pigmentation, Nos
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Hemorrhage
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Atrophy, Nos
		Cyst, Nos
		Tissue Examined
Salivary gland		Inflammation, Chronic Focal
Skin	Neck	Squamous Cell Carcinoma
Stomach	Forestomach	Hyperplasia, Epithelial
	Glandular Stomach	Inflammation, Chronic Focal
Testis		Hyperplasia, Interstitial Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 1\_049

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 700 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Necrosis, Focal
Lung		Metaplasia, Osseous
Lymph node	Thoracic Lymph Node	Hyperplasia, Lymphoid
	Mandibular Lymph Node	Hyperplasia, Plasma Cell
Mammary gland		Hyperplasia, Cystic
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Tissue Not Examined
Spleen		Hematopoiesis
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_050

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 700 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Intestine Large	Colon	Parasitism
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
Lung		Metaplasia, Osseous
Lymph node	Renal Lymph Node	Pigmentation, Nos
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
	Intermedia	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Inflammation, Chronic Focal
		Tissue Examined
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified		Cyst, Epidermal Inclusion

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_001

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Nos
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Cyst, Nos
		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Pancreas		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Spleen		Atrophy, Focal
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
		Mineralization
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_002

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Pigmentation, Nos
Liver		Necrosis, Focal
Lung		Congestion, Nos
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Tissue Not Examined
Stomach	Forestomach	Hyperplasia, Epithelial
Testis	Tubule	Atrophy, Diffuse
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus	Tunica Vaginalis	Mesothelioma, Nos
		Hemorrhage
		Involution, Nos
Thyroid		Cyst, Nos
Unspecified	Abdominal Cavity	Mesothelioma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_003

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hematopoiesis
	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
		Mineralization
Intestine Large	Colon	Erosion
Kidney	Pelvis	Dilatation, Nos
		Hyperplasia, Tubular Cell
		Mineralization
		Necrosis, Focal
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Crystals, Nos
		Osteosarcoma, Metastatic
Mammary gland		Hyperplasia, Cystic
Pancreas		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Prostate		Inflammation, Suppurative
Salivary gland		Inflammation, Chronic Focal
Seminal vesicle		Inflammation, Suppurative
Stomach	Glandular Stomach	Fibrosis
	Forestomach	Hyperplasia, Epithelial
	Glandular Stomach	Mineralization
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 2\_003

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Urinary bladder

Submucosa

Inflammation, Chronic Focal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_004

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Hyperplasia, Granulocytic
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
		Necrosis, Focal
Lung		Alveolar Macrophages
		Carcinoma, Nos, Metastatic
Pancreas	Acinus	Atrophy, Focal
		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Skin		Inflammation, Chronic Focal
Spleen		Hematopoiesis
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Hyperplasia, Interstitial Cell
Thymus		Involution, Nos
Trachea	Submucosa	Inflammation, Chronic Focal
Zymbal gland		Carcinoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_005

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Cyst, Nos
	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
	Islets	Hyperplasia, Focal
Pituitary gland	Posterior Lobe	Gliosis
Preputial gland		Tissue Not Examined
Salivary gland		Cytoplasmic Change, Basophilic
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
		Mineralization
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 2\_006

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Nephropathy

Liver

Hepatocytes

Tubular-Cell Adenoma

Bile Duct

Cytoplasmic Change, Basophilic

Lymph node

Lumbar Lymph Node

Hyperplasia, Focal

Pituitary gland

Anterior Pituitary

Hyperplasia, Plasma Cell

Preputial gland

Hyperplasia, Focal

Skin

Hip

Tissue Not Examined

Testis

Hyperplasia, Epithelial

Thymus

Atrophy, Focal

Interstitial-Cell Tumor

Involution, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_007

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain	Meninges	Hyperplasia, Nos
Heart		Inflammation, Chronic Focal
	Atrium	Mineralization
Kidney		Cyst, Nos
		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Tubular-Cell Adenoma
		Hyperplasia, Focal
		Peliosis Hepatis
Lung		Congestion, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Spleen		Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Tail	Necrosis, Diffuse

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_008

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Necrosis, Focal
		Peliosis Hepatis
Pancreas	Islets	Islet-Cell Carcinoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Hyperplasia, Nos
		Tissue Examined
Spleen		Atrophy, Focal
		Hematopoiesis
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		C-Cell Adenoma
		Hyperplasia, C Cell
Unspecified	Groin	Inflammation, Chronic Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_009

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain	Meninges	Hemorrhage Hydrocephalus, Nos
Heart		Inflammation, Chronic Focal Necrosis, Focal
Kidney		Nephropathy Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal Necrosis, Focal
Lung		Congestion, Nos
Lymph node	Mandibular Lymph Node	Cyst, Nos
Mammary gland		Hyperplasia, Cystic
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Tissue Not Examined
Spleen		Congestion, Nos
Stomach	Forestomach	Inflammation, Acute Focal
Testis	Tunica Vaginalis	Mesothelioma, Nos
Thymus		Involution, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 2\_010

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Nephropathy
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Seminal vesicle		Atrophy, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Unspecified	Back	Fibroma
	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_011

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Hemorrhage
Kidney	Pelvis	Dilatation, Nos
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
		Hemorrhage
	Bile Duct	Hyperplasia, Focal
Mammary gland		Hyperplasia, Cystic
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Tissue Not Examined
Prostate		Inflammation, Suppurative
Salivary gland		Cytoplasmic Change, Basophilic
Skin	Lower Leg	Hyperplasia, Epithelial
Spinal cord		Hemorrhage
Stomach	Glandular Stomach	Atrophy, Focal
	Glandular Stomach	Fibrosis
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Urinary bladder	Muscularis	Hemorrhage

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_012

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Hyperplasia, Granulocytic
Brain		Hydrocephalus, Nos
Heart		Inflammation, Chronic Focal
Intestine Large	Cecum, Colon	Impaction, Fecal
Intestine Small	Peyers Patch	Hematopoiesis
	Mucosa, Duodenum	Hyperplasia, Nos
Kidney	Pelvis	Hyperplasia, Epithelial
	Pelvis	Inflammation, Suppurative
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Congestion, Nos
Lymph node	Mesenteric Lymph Node	Hemorrhage
Mammary gland		Hyperplasia, Cystic
Pancreas		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Tissue Not Examined
Prostate		Hyperplasia, Epithelial
		Inflammation, Suppurative
Seminal vesicle		Inflammation, Chronic Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
	Forestomach	Inflammation, Chronic Focal
	Glandular Stomach	Inflammation, Chronic Focal
	Forestomach	Ulcer, Nos
	Glandular Stomach	Ulcer, Nos
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 2\_012

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Urinary bladder

Mucosa

Hyperplasia, Epithelial

Submucosa

Inflammation, Chronic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_013

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
	Islets	Islet-Cell Adenoma
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Prostate		Inflammation, Suppurative
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Hyperplasia, Interstitial Cell
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_014

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Aorta Nos	Perivasculitis
Bone marrow		Fibrosis, Myelo
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Dilatation, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Lung		Alveolar Macrophages
		Crystals, Nos
		Hemorrhage
		Hyperplasia, Alveolar Epithelium
		Inflammation, Interstitial
Pancreas	Acinus	Atrophy, Focal
		Inflammation, Chronic Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Salivary gland		Cytoplasmic Change, Basophilic
Seminal vesicle		Atrophy, Nos
Testis		Atrophy, Diffuse
		Hemorrhage
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified		Cyst, Epidermal Inclusion
	Multiple Organs Nos	Mineralization
	Abdominal Cavity	Necrosis, Fat
	Abdominal Cavity	Periarteritis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 2\_015

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney		Nephropathy
		Pigmentation, Nos
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Adenoma, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Unspecified	Abdomen	Fibroma

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_016

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Lung		Congestion, Nos
Pituitary gland	Anterior Pituitary	Pigmentation, Nos
Preputial gland		Adenoma, Nos
		Hyperplasia, Nos
		Tissue Examined
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_017

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

**OBSERVATIONS**

Brain	Meninges	Meningioma
Esophagus	Lumen	Inflammation, Acute
Heart		Inflammation, Chronic Focal
Kidney		Congestion, Nos
		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Prostate		Inflammation, Chronic Focal
Spleen		Congestion, Nos
Stomach	Forestomach	Hyperplasia, Epithelial
Thymus		Hemorrhage
Trachea	Submucosa	Inflammation, Acute Focal
Urinary bladder	Muscularis	Hemorrhage

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_018

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Inflammation, Suppurative
Eye	Retina	Atrophy, Focal
	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Pancreas	Acinus	Atrophy, Focal
		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Tissue Not Examined
Prostate		Inflammation, Suppurative
Salivary gland		Atrophy, Focal
Spleen		Atrophy, Focal
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_019

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Brain	Meninges	Meningioma
Heart		Inflammation, Chronic Focal
Kidney		Congestion, Nos
		Nephropathy
Liver		Congestion, Nos
	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Congestion, Nos
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Tissue Not Examined
Seminal vesicle		Spermatocele
Spleen		Congestion, Nos
Testis		Hyperplasia, Interstitial Cell
Thymus		Hemorrhage
		Involution, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_020

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Lung		Alveolar/Bronchiolar Carcinoma
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Prostate		Inflammation, Suppurative
Skin	Ear	Squamous Cell Papilloma
Spleen		Congestion, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_021

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla Medulla	Degeneration, Nos Hyperplasia, Nos Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Hemorrhage
Eye	Retina Crystalline Lens	Atrophy, Focal Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy Pigmentation, Nos
Liver	Hepatocytes  Bile Duct	Cytoplasmic Vacuolization Hemorrhage Hyperplasia, Focal
Lymph node	Mandibular Lymph Node Mesenteric Lymph Node	Cyst, Nos Hemorrhage
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Tissue Not Examined
Stomach	Glandular Stomach Glandular Stomach	Atrophy, Focal Fibrosis
Testis		Atrophy, Focal Hyperplasia, Interstitial Cell Interstitial-Cell Tumor
Thymus		Involution, Nos
Trachea	Submucosa	Inflammation, Acute Focal
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_022

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel  
Harderian gland  
Kidney

Pulmonary Artery Nos  
Harderian Gland  
Pelvis

Mineralization  
Inflammation, Chronic Focal  
Hyperplasia, Epithelial  
Nephropathy  
Pigmentation, Nos  
Hemorrhage  
Hyperplasia, Plasma Cell  
Hyperplasia, Nos  
Hyperplasia, Focal  
Tissue Not Examined  
Atrophy, Nos  
Atrophy, Focal  
Congestion, Nos  
Atrophy, Focal  
Interstitial-Cell Tumor  
Fibroma

Lung  
Lymph node  
Parathyroid gland  
Pituitary gland  
Preputial gland  
Seminal vesicle  
Spleen

Mandibular Lymph Node

Anterior Pituitary

Testis

Unspecified

Thorax

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_023

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Nos
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Tissue Not Examined
Stomach	Forestomach	Hyperplasia, Epithelial
	Glandular Stomach	Inflammation, Chronic Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 2\_024

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Bone	Skull	Osteoma
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
	Hepatocytes	Peliosis Hepatis
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Testis		Atrophy, Focal
		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_025

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Necrosis, Focal
		Peliosis Hepatis
Lymph node	Mandibular Lymph Node	Hyperplasia, Plasma Cell
Pancreas	Acinus	Atrophy, Focal
	Islets	Hyperplasia, Focal
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Adenoma, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Spleen		Hematopoiesis
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Neck	Edema, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_026

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Congestion, Nos
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Congestion, Nos
Lymph node	Mesenteric Lymph Node	Hemorrhage
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Tissue Not Examined
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_027

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Hemorrhage
		Hydrocephalus, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Lung		Hemorrhage
Lymph node	Mandibular Lymph Node	Hemorrhage
Oral mucosa	Palate Nos	Squamous Cell Papilloma
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_028

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Eye		Phthisis Bulbi
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney	Pelvis	Hyperplasia, Epithelial
		Hyperplasia, Tubular Cell
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
Lymph node	Thoracic Lymph Node	Angiectasis
Preputial gland		Tissue Not Examined
Seminal vesicle		Atrophy, Nos
Spleen		Atrophy, Focal
		Congestion, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_029

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Lymph node	Mandibular Lymph Node	Cyst, Nos
Nasal cavity		Foreign Body, Nos
		Inflammation, Acute Focal
Pituitary gland	Intermedia	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Examined
Spleen		Hematopoiesis
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Abdomen	Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_030

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Intestine Large	Cecum, Colon	Congestion, Nos
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
Lung		Pigmentation, Nos
Lymph node	Abdominal Lymph Node	Cyst, Nos
Mammary gland		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Stomach	Forestomach	Hyperplasia, Epithelial
	Forestomach	Ulcer, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Tongue		Squamous Cell Papilloma
Unspecified	Abdominal Cavity	Necrosis, Fat

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_031

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung	Pleura Nos	Pigmentation, Nos
Lymph node	Renal Lymph Node	Congestion, Nos
	Thoracic Lymph Node	Pigmentation, Nos
Parathyroid gland		Hyperplasia, Nos
Preputial gland		Tissue Not Examined
Skin		Basal-Cell Tumor
	Scrotum	Inflammation, Acute Focal
Spleen		Atrophy, Focal
		Hematopoiesis
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
		Mineralization
Unspecified	Hip	Fibroma
	Scrotum	Sarcoma, Nos
Zymbal gland		Cyst, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_032

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Retina	Atrophy, Diffuse
	Crystalline Lens	Degeneration, Nos
Heart	Atrium	Thrombosis, Nos
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Pigmentation, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Testis		Atrophy, Focal
		Interstitial-Cell Tumor

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_033

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Intestine Large  
Kidney

Colon

Parasitism

Cyst, Nos

Pelvis

Hyperplasia, Epithelial

Nephropathy

Liver

Abnormal Curvature

Hepatocytes

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Focal

Peliosis Hepatis

Lymph node

Mesenteric Lymph Node

Edema, Nos

Renal Lymph Node

Pigmentation, Nos

Thoracic Lymph Node

Pigmentation, Nos

Parathyroid gland

Hyperplasia, Nos

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Anterior Pituitary

Hyperplasia, Focal

Preputial gland

Tissue Not Examined

Testis

Atrophy, Focal

Unspecified

Face

Interstitial-Cell Tumor

Cyst, Epidermal Inclusion

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_034

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
	Cortex Nos	Hemorrhage
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Hemorrhage
Heart		Inflammation, Chronic Focal
Kidney		Necrosis, Focal
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Necrosis, Focal
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Intermedia	Cyst, Nos
Preputial gland		Tissue Not Examined
Prostate		Hyperplasia, Epithelial
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_035

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hematopoiesis
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Hyperplasia, Granulocytic
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
		Tubular-Cell Adenocarcinoma
Liver	Hepatocytes	Degeneration, Nos
	Bile Duct	Hyperplasia, Focal
Lymph node	Thoracic Lymph Node	Pigmentation, Nos
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Tissue Not Examined
Prostate		Inflammation, Chronic Focal
Seminal vesicle		Atrophy, Nos
Skin	Ear	Squamous Cell Papilloma
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Fibrosis
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Abdominal Cavity	Mesothelioma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_036

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney	Pelvis	Hyperplasia, Epithelial Nephropathy
Liver	Hepatocytes Bile Duct	Cytoplasmic Change, Basophilic Hyperplasia, Focal Peliosis Hepatis
Mammary gland		Fibroadenoma Hyperplasia, Cystic
Pituitary gland Preputial gland	Anterior Pituitary	Adenoma, Nos Atrophy, Nos Tissue Examined
Skin Spleen Testis	Foot And Toe Nos	Hyperplasia, Epithelial Atrophy, Focal Atrophy, Focal Interstitial-Cell Tumor
Unspecified	Foot Thorax Multiple Organs Nos	Cyst, Epidermal Inclusion Cyst, Epidermal Inclusion Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_037

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Congestion, Nos
	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Hypertrophy, Nos
	Pulmonary Artery Nos	Mineralization
Eye	Retina	Atrophy, Focal
	Sclera	Mineralization
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Degeneration, Nos
	Bile Duct	Hyperplasia, Focal
Pancreas	Acinus	Atrophy, Focal
Penis		Ulcer, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Stomach	Forestomach	Edema, Nos
	Forestomach	Hyperplasia, Epithelial
	Forestomach	Ulcer, Nos
Testis		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_038

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Hemorrhage
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Lymph node	Mandibular Lymph Node	Cyst, Nos
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Infection, Fungal
Pancreas		Pigmentation, Nos
Preputial gland		Tissue Not Examined
Stomach	Forestomach	Hyperplasia, Epithelial
	Glandular Stomach	Ulcer, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_039

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Eye	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
Intestine Large	Rectum	Hyperplasia, Polypoid
	Colon	Inflammation, Chronic Focal
Intestine Small	Mesentery Nos	Inflammation, Chronic
Kidney		Congestion, Nos
		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
		Peliosis Hepatis
Pancreas		Inflammation, Chronic Focal
Preputial gland		Tissue Not Examined
Prostate		Hyperplasia, Epithelial
		Inflammation, Chronic Focal
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Hyperplasia, Interstitial Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_040

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain	Meninges	Meningioma
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Hemorrhage
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_041

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone	Vertebra	Chordoma
Heart		Inflammation, Chronic Focal
Intestine Large	Cecum, Colon	Dilatation, Nos
	Colon	Dilatation, Nos
Kidney		Nephropathy
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Lung		Congestion, Nos
Lymph node	Mesenteric Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Plasma Cell
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Cyst, Nos
Preputial gland		Tissue Not Examined
Stomach	Forestomach	Hyperplasia, Epithelial
	Forestomach	Inflammation, Chronic Focal
	Forestomach	Necrosis, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_042

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial Nephropathy Pigmentation, Nos Tubular-Cell Adenoma
Liver	Hepatocytes	Cytoplasmic Change, Basophilic Peliosis Hepatis
Mammary gland		Carcinoma, Nos
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Tissue Not Examined
Prostate		Inflammation, Suppurative
Seminal vesicle		Dilatation, Nos
Spleen		Atrophy, Focal
Testis		Atrophy, Focal Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Cyst, Follicular Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Urinary bladder	Submucosa	Inflammation, Chronic Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_043

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver		Hemorrhage
		Necrosis, Focal
Lung		Alveolar/Bronchiolar Adenoma
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Tissue Not Examined
Spleen		Fibrosis, Focal
Stomach	Glandular Stomach	Degeneration, Cystic
	Forestomach	Hyperplasia, Epithelial
	Forestomach	Ulcer, Nos
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_044

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Atrophy, Focal
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Pigmentation, Nos
	Bile Duct	Cytoplasmic Vacuolization
		Hyperplasia, Focal
Pituitary gland	Anterior Pituitary	Necrosis, Focal
Preputial gland		Pigmentation, Nos
		Atrophy, Nos
Testis		Tissue Examined
		Atrophy, Diffuse
		Atrophy, Focal
		Hyperplasia, Interstitial Cell
Thymus		Interstitial-Cell Tumor
Thyroid		Involution, Nos
		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Hyperplasia, C Cell
		Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_045

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Brain		Astrocytoma
Eye	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver		Congestion, Nos
	Bile Duct	Hyperplasia, Focal
Lung		Congestion, Nos
Lymph node	Mesenteric Lymph Node	Hyperplasia, Lymphoid
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Spleen		Congestion, Nos
Testis		Interstitial-Cell Tumor
Thymus		Hemorrhage
		Involution, Nos
Unspecified	Chest	Sarcoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_046

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Hydrocephalus, Nos
	Meninges	Hyperplasia, Nos
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Focal
Lymph node	Pancreatic Lymph Node	Edema, Nos
Mammary gland		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Salivary gland		Inflammation, Chronic Focal
Stomach	Forestomach	Edema, Nos
	Glandular Stomach	Edema, Nos
	Forestomach	Ulcer, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2\_047

TRT#: 2

SEX: Male

DAY ON TEST:

DOSE: 350 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Hydrocephalus, Nos
	Meninges	Hyperplasia, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Lymph node	Mandibular Lymph Node	Hemorrhage
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Tissue Not Examined
Prostate		Hyperplasia, Epithelial
		Inflammation, Suppurative
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_048

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Bone  
Kidney

Medulla

Hyperplasia, Nos  
Fibrous Osteodystrophy  
Cyst, Nos

Pelvis

Hyperplasia, Epithelial  
Nephropathy

Liver  
Lymph node  
Pancreas  
Parathyroid gland  
Preputial gland

Bile Duct

Hyperplasia, Focal

Mandibular Lymph Node

Congestion, Nos

Acinus

Atrophy, Focal

Hyperplasia, Nos

Atrophy, Nos

Tissue Examined

Testis

Atrophy, Focal

Interstitial-Cell Tumor

Thymus

Involution, Nos

Unspecified

Multiple Organs Nos

Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_049

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Hemorrhage
Lymph node	Renal Lymph Node	Cyst, Nos
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Atrophy, Diffuse
Preputial gland		Tissue Not Examined
Seminal vesicle		Atrophy, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdomen	Lipoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 2\_050

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 350 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Eye	Retina	Atrophy, Diffuse
	Crystalline Lens	Degeneration, Nos
Harderian gland	Harderian Gland	Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lymph node	Renal Lymph Node	Edema, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Tissue Not Examined
Seminal vesicle		Atrophy, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_001

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Pheochromocytoma
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial Nephropathy
Liver	Bile Duct	Hyperplasia, Focal Necrosis, Focal
Lung		Inflammation, Chronic Focal Pigmentation, Nos
Lymph node	Mandibular Lymph Node Mesenteric Lymph Node	Hemorrhage Hemorrhage
Nasal cavity		Infection, Fungal
Pancreas	Acinus Islets	Atrophy, Focal Hyperplasia, Focal
Preputial gland		Atrophy, Nos Tissue Examined
Prostate		Hyperplasia, Epithelial
Salivary gland		Hyperplasia, Intraductal
Spleen		Atrophy, Focal
Testis		Atrophy, Focal Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_002

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Congestion, Nos
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Astrocytoma
Heart	Atrium	Hemorrhage
Intestine Small	Mesentery Nos	Pigmentation, Nos
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
		Hemorrhage
	Bile Duct	Hyperplasia, Focal
Lung	Pleura Nos	Hemorrhage
Mammary gland		Hyperplasia, Cystic
Pituitary gland	Intermedia	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_003

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Congestion, Nos
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Hyperplasia, Granulocytic
Heart		Hemorrhage
	Atrium	Inflammation, Chronic Focal
Kidney		Thrombosis, Nos
Liver	Hepatocytes	Nephropathy
		Clear-Cell Change
	Bile Duct	Hematopoiesis
		Hyperplasia, Focal
		Inflammation, Chronic Focal
Lymph node	Mesenteric Lymph Node	Peliosis Hepatis
Preputial gland		Hemorrhage
		Atrophy, Nos
		Carcinoma, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Mediastinum Nos	Hemorrhage

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_004

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Hyperplasia, Epithelial
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lymph node	Renal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hyperplasia, Lymphoid
Mammary gland		Hyperplasia, Cystic
Pancreas		Periarteritis
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		C-Cell Adenoma
Unspecified	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_005

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Pheochromocytoma
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy Pigmentation, Nos
Liver	Hepatocytes Hepatocytes Bile Duct	Clear-Cell Change Cytoplasmic Change, Basophilic Hyperplasia, Focal
Lung		Alveolar Macrophages Inflammation, Chronic Focal
Lymph node	Mediastinal Lymph Node	Pigmentation, Nos
Nasal cavity		Infection, Fungal Inflammation, Acute Focal
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Adenoma, Nos Tissue Examined
Testis		Atrophy, Focal Interstitial-Cell Tumor
Thymus		Involution, Nos
Trachea	Submucosa	Cyst, Nos
Unspecified	Multiple Organs Nos Adipose Tissue	Leukemia, Mononuclear Cell Periarteritis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_006

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Nos
	Medulla	Pheochromocytoma
Heart		Inflammation, Chronic Focal
	Atrium	Mineralization
Kidney		Cyst, Nos
		Nephropathy
		Pigmentation, Nos
Liver		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Preputial gland		Atrophy, Nos
		Cyst, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Skin	Groin	Basal-Cell Tumor
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Diffuse
		Interstitial-Cell Tumor
		Necrosis, Focal
Thymus		Involution, Nos
Unspecified	Face	Abscess, Nos
	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_007

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Necrosis, Focal
Eye	Retina	Atrophy, Focal
	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Hyperplasia, Focal
Pituitary gland	Anterior Pituitary	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 3\_008

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Hepatocytes	Cytoplasmic Vacuolization
		Hemorrhage
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Alveolar Macrophages
		Congestion, Nos
		Hyperplasia, Alveolar Epithelium
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Hyperplasia, Epithelial
		Involution, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 3\_009

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Brain	Meninges	Congestion, Nos
Heart		Fibrosis, Focal
		Inflammation, Chronic Focal
Kidney		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Pigmentation, Nos
Lung		Congestion, Nos
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Testis		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
Thymus		Involution, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_010

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Retina	Atrophy, Diffuse
	Retina	Atrophy, Focal
	Crystalline Lens	Degeneration, Nos
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Lymph node	Mandibular Lymph Node	Cyst, Nos
	Renal Lymph Node	Pigmentation, Nos
Mammary gland		Hyperplasia, Cystic
Preputial gland		Atrophy, Nos
		Inflammation, Acute Focal
		Tissue Examined
Spleen		Atrophy, Focal
Stomach	Forestomach	Edema, Nos
	Forestomach	Hyperplasia, Epithelial
	Forestomach	Ulcer, Nos
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Urinary bladder	Mucosa	Transitional-Cell Papilloma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_011

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Retina	Atrophy, Diffuse
	Retina	Atrophy, Focal
	Crystalline Lens	Degeneration, Nos
Heart		Inflammation, Chronic Focal
	Atrium	Mineralization
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Focal
Lung		Alveolar/Bronchiolar Adenoma
Lymph node	Mandibular Lymph Node	Cyst, Nos
Pancreas	Islets	Islet-Cell Carcinoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Spleen		Congestion, Nos
Stomach	Glandular Stomach	Inflammation, Chronic Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_012

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver		Cyst, Nos
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Mammary gland		Hyperplasia, Cystic
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		C-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_013

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Intestine Large	Cecum, Colon	Parasitism
Kidney		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Alveolar/Bronchiolar Adenoma
Nasal cavity		Inflammation, Chronic Focal
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Tissue Examined
Seminal vesicle		Atrophy, Nos
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Hip	Cyst, Epidermal Inclusion
	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 3\_014

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Congestion, Nos
Brain		Congestion, Nos
Heart		Inflammation, Chronic Focal
Intestine Small	Duodenum	Adenocarcinoma, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Lung		Congestion, Nos
		Edema, Nos
		Inflammation, Acute Focal
		Mineralization
Lymph node	Mandibular Lymph Node	Congestion, Nos
Nasal cavity		Congestion, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Cyst, Nos
		Tissue Examined
Thymus		Involution, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_015

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Necrosis, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Hemorrhage
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Lung		Alveolar/Bronchiolar Carcinoma
Lymph node	Thoracic Lymph Node	Cyst, Nos
Nasal cavity		Foreign Body, Nos
		Inflammation, Acute Focal
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
	Glandular Stomach	Ulcer, Nos
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
		Mineralization
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Trachea	Submucosa	Inflammation, Chronic Focal
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 3\_015

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_016

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Nasolacrimal Duct	Inflammation, Acute Focal
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney		Hyperplasia, Tubular Cell
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Edema, Nos
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Necrosis, Focal
Testis		Interstitial-Cell Tumor
		Mineralization
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_017

TRT#: 3

DOSE: 0

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST:

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla	Degeneration, Nos Hyperplasia, Nos
Bone marrow		Hyperplasia, Hematopoietic
Heart		Inflammation, Chronic Focal
Intestine Large	Rectum	Parasitism
Intestine Small	Peyers Patch	Congestion, Nos
Kidney		Cyst, Nos Nephropathy
Liver	Hepatocytes Hepatocytes Bile Duct	Cytoplasmic Change, Basophilic Cytoplasmic Vacuolization Hyperplasia, Focal Inflammation, Chronic Focal
Lung		Alveolar Macrophages
Lymph node	Mandibular Lymph Node	Cyst, Nos
Nasal cavity		Hemorrhage
Pancreas	Acinus Islets	Atrophy, Focal Hyperplasia, Focal Inflammation, Chronic Focal
Preputial gland		Atrophy, Nos Tissue Examined
Salivary gland		Inflammation, Chronic Focal
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Inflammation, Chronic Focal
Testis		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Cyst, Follicular Nos
Unspecified		Sarcoma, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_018

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Pheochromocytoma
Bone		Fibrous Osteodystrophy
Eye	Retina	Atrophy, Diffuse
	Crystalline Lens	Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Alveolar Macrophages
		Hemorrhage
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Inflammation, Acute Focal
Pancreas	Acinus	Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Hyperplasia, Nos
		Tissue Examined
Prostate		Inflammation, Suppurative
Spleen		Hematopoiesis
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Hyperplasia, Epithelial
		Involution, Nos
Unspecified	Multiple Organs Nos	Mineralization

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_019

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Intestine Small	Submucosa, Duodenum	Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Hepatocytes	Degeneration, Nos
		Hematopoiesis
	Bile Duct	Hyperplasia, Focal
Pancreas		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Hyperplasia, Epithelial
Spleen		Hematopoiesis
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
Trachea	Submucosa	Inflammation, Chronic Focal
Unspecified	Adipose Tissue	Mineralization
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_020

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Cortex Nos Medulla	Cyst, Nos Hyperplasia, Focal Pheochromocytoma
Bone		Necrosis, Focal
Eye	Retina Crystalline Lens Retina	Atrophy, Diffuse Degeneration, Nos Inflammation, Chronic Focal
Heart		Inflammation, Chronic Focal Metaplasia, Osseous
Kidney	Atrium Pelvis	Thrombosis, Nos Cyst, Nos Hyperplasia, Epithelial Nephropathy
Liver	Hepatocytes Bile Duct	Pigmentation, Nos Cytoplasmic Change, Eosinophilic Hyperplasia, Focal
Lung		Alveolar Macrophages Crystals, Nos Hemorrhage
Mammary gland		Hyperplasia, Cystic
Parathyroid gland		Hyperplasia, Nos
Preputial gland		Atrophy, Nos Tissue Examined
Prostate		Hyperplasia, Epithelial Inflammation, Suppurative
Testis		Atrophy, Focal Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos Multiple Organs Nos	Leukemia, Mononuclear Cell Mineralization

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_021

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone		Fibrous Osteodystrophy
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Alveolar Macrophages
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 3\_022

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
Mammary gland		Pigmentation, Nos
Preputial gland		Atrophy, Nos
		Hyperplasia, Nos
		Tissue Examined
Spleen		Atrophy, Focal
		Congestion, Nos
Testis		Interstitial-Cell Tumor
Thyroid		Follicular-Cell Adenoma
		Hyperplasia, C Cell
Unspecified	Thorax	Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 3\_023

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Nos
	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Eye	Crystalline Lens	Degeneration, Nos
	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_024

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Atrophy, Diffuse
	Cortex Nos	Pigmentation, Nos
Epididymis		Degeneration, Nos
Esophagus		Inflammation, Chronic Focal
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Intestine Small	Duodenum	Inflammation, Suppurative
	Ileum, Ileum	Inflammation, Suppurative
	Jejunum	Inflammation, Suppurative
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
		Pigmentation, Nos
Lung		Alveolar Macrophages
		Hemorrhage
Lymph node	Mandibular Lymph Node	Cyst, Nos
	Mesenteric Lymph Node	Inflammation, Acute
	Mandibular Lymph Node	Pigmentation, Nos
	Thoracic Lymph Node	Pigmentation, Nos
Pancreas	Acinus	Atrophy, Focal
		Inflammation, Chronic Focal
	Islets	Islet-Cell Adenoma
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Corpora Amylacea
		Inflammation, Chronic Focal
Spleen		Hematopoiesis
Stomach	Forestomach	Hyperplasia, Epithelial
	Glandular Stomach	Inflammation, Acute Focal
Testis		Atrophy, Diffuse

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 3\_024

**TRT#:** 3

**DOSE:** 0

**SEX:** Male

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

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**OBSERVATIONS**

Thymus

Thyroid

Hyperplasia, Interstitial Cell

Interstitial-Cell Tumor

Mineralization

Involution, Nos

Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_025

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Nos
Bone		Fibrous Osteodystrophy
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Alveolar Macrophages
		Crystals, Nos
		Hemorrhage
Lymph node	Mandibular Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hemorrhage
	Pancreatic Lymph Node	Hemorrhage
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos
		Inflammation, Suppurative
		Tissue Examined
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Mineralization

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_026

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Nos
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain	Meninges	Hemorrhage
		Hydrocephalus, Nos
		Necrosis, Focal
Epididymis		Degeneration, Nos
Heart		Hemorrhage
		Inflammation, Chronic Focal
Kidney	Pelvis	Dilatation, Nos
	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Lung		Alveolar Macrophages
		Hemorrhage
		Inflammation, Acute Focal
Mammary gland		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Hemorrhage
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Salivary gland		Hyperplasia, Intraductal
Skin	Tail	Inflammation, Chronic Focal
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Glandular Stomach	Ulcer, Nos
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Hyperplasia, Interstitial Cell

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 3\_026

**TRT#:** 3

**DOSE:** 0

**SEX:** Male

**DISP:** Moribund Sacrifice

**DAY ON TEST:**

**HISTO:**

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**OBSERVATIONS**

Unspecified

Multiple Organs Nos

Interstitial-Cell Tumor

Mineralization

Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 3\_027

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Congestion, Nos
Bone marrow		Hyperplasia, Hematopoietic
Heart		Degeneration, Nos
		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver		Inflammation, Chronic Focal
Lung		Hemorrhage
		Inflammation, Chronic Focal
Lymph node	Mandibular Lymph Node	Congestion, Nos
	Mesenteric Lymph Node	Hyperplasia, Lymphoid
Pancreas		Hemorrhage
		Inflammation, Acute Focal
		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Tissue Not Examined
Spleen		Hematopoiesis
Thymus		Hemorrhage
		Involution, Nos
Unspecified	Abdominal Cavity	Hematoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_028

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Eye	Lacrimal Gland	Pigmentation, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Lung		Crystals, Nos
		Hemorrhage
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Inflammation, Acute Focal
Pancreas		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Salivary gland		Cytoplasmic Change, Basophilic
Stomach	Forestomach	Hyperplasia, Epithelial
	Glandular Stomach	Inflammation, Chronic Focal
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
		Spermatocoele
Thymus		Involution, Nos
Thyroid		Cyst, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_029

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Nos
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Retina	Atrophy, Diffuse
	Crystalline Lens	Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Cyst, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Spleen		Atrophy, Focal
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat
	Tail	Necrosis, Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_030

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Congestion, Nos
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
		Hemorrhage
	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Alveolar Macrophages
		Foreign Body, Nos
Oral mucosa	Palate Nos	Squamous Cell Carcinoma
Pancreas	Acinus	Atrophy, Focal
		Inflammation, Chronic Focal
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
		Necrosis, Fat
Thymus		Involution, Nos
Thyroid		C-Cell Adenoma
Trachea	Submucosa	Inflammation, Chronic Focal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_031

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Cyst, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
	Pulmonary Artery Nos	Thrombosis, Nos
Brain		Hemorrhage
Eye	Retina	Atrophy, Diffuse
	Crystalline Lens	Degeneration, Nos
	Anterior Chamber	Hemorrhage
	Retina	Hemorrhage
Heart		Inflammation, Chronic Focal
	Ventricle	Thrombosis, Nos
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
		Necrosis, Focal
Mammary gland		Hyperplasia, Cystic
Pituitary gland	Anterior Pituitary	Necrosis, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Hyperplasia, Epithelial
Spleen		Necrosis, Focal
Stomach	Forestomach	Edema, Nos
	Glandular Stomach	Hemorrhage
	Forestomach	Hyperplasia, Epithelial
	Forestomach	Inflammation, Acute Focal
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 3\_031

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Abdominal Cavity

Necrosis, Fat

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_032

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial Nephropathy
Liver	Hepatocytes Hepatocytes Bile Duct	Cytoplasmic Change, Basophilic Cytoplasmic Vacuolization Hyperplasia, Focal Necrosis, Focal Peliosis Hepatis Alveolar Macrophages
Lung		Cyst, Nos
Lymph node	Sacral Lymph Node Mandibular Lymph Node Mesenteric Lymph Node Mandibular Lymph Node	Hemorrhage Hemorrhage Hyperplasia, Plasma Cell
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Atrophy, Nos Hyperplasia, Nos Tissue Examined
Spleen		Atrophy, Diffuse
Testis		Atrophy, Focal Interstitial-Cell Tumor

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 3\_033

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Brain		Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Degeneration, Nos
	Bile Duct	Hyperplasia, Focal
Lung	Bronchiole	Hyperplasia, Epithelial
Lymph node	Mandibular Lymph Node	Cyst, Nos
Nasal cavity		Inflammation, Acute Focal
Preputial gland		Tissue Not Examined
Spleen		Hematopoiesis
Stomach	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 3\_034

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver		Congestion, Nos
	Bile Duct	Hyperplasia, Focal
	Bile Duct	Inflammation, Chronic Focal
Lung		Congestion, Nos
Pancreas		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Testis		Atrophy, Focal
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_035

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Hyperplasia, Granulocytic
Heart		Inflammation, Chronic Focal
	Atrium	Thrombosis, Nos
Kidney	Pelvis	Hyperplasia, Epithelial
		Mineralization
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
		Hematopoiesis
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Hyperplasia, Alveolar Epithelium
		Metaplasia, Osseous
Lymph node	Mandibular Lymph Node	Cyst, Nos
	Sacral Lymph Node	Cyst, Nos
		Cyst, Nos
	Renal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Hyperplasia, Plasma Cell
Nasal cavity		Inflammation, Acute Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Adenoma, Nos
		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 3\_035

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

**ANIMAL ID:** 3\_036

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Alveolar Macrophages
Mammary gland		Fibroadenoma
Nasal cavity		Inflammation, Acute Focal
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Skin	Back	Hyperplasia, Epithelial
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
		Sarcoma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_037

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Bone		Inflammation, Acute Focal
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Bile Duct	Hyperplasia, Focal
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Pigmentation, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Seminal vesicle		Atrophy, Nos
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_038

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Pheochromocytoma
Eye	Crystalline Lens	Degeneration, Nos
	Anterior Chamber	Inflammation, Acute
	Cornea	Inflammation, Acute
Heart	Atrium	Dilatation, Nos
		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Necrosis, Focal
Lymph node	Mesenteric Lymph Node	Hemorrhage
	Renal Lymph Node	Hemorrhage
Pancreas	Acinus	Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Hyperplasia, Nos
		Inflammation, Suppurative
		Tissue Examined
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Multiple Organs Nos	Mineralization

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_039

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Oral mucosa	Palate Nos	Hyperplasia, Epithelial
Pancreas	Acinus	Cytoplasmic Change, Basophilic
Preputial gland		Atrophy, Nos
		Inflammation, Suppurative
		Tissue Examined
Prostate		Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		C-Cell Adenoma
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_040

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Intestine Large	Rectum	Parasitism
Kidney	Pelvis	Cyst, Nos
		Hyperplasia, Epithelial
		Mineralization
		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Inflammation, Chronic Focal
Oral mucosa	Palate Nos	Hyperplasia, Epithelial
Pancreas	Acinus	Atrophy, Focal
Parathyroid gland		Hyperplasia, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Salivary gland		Atrophy, Focal
Seminal vesicle		Atrophy, Nos
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Diffuse
		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Unspecified	Thorax	Fibroma
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_041

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla	Focal Cellular Change Pheochromocytoma, Malignant
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial Hyperplasia, Tubular Cell Nephropathy Pigmentation, Nos
Liver	Hepatocytes Hepatocytes Bile Duct	Clear-Cell Change Cytoplasmic Change, Basophilic Hyperplasia, Focal
Lymph node	Mandibular Lymph Node	Cyst, Nos
Mammary gland		Hyperplasia, Cystic
Parathyroid gland		Hyperplasia, Nos
Preputial gland		Atrophy, Nos Tissue Examined
Stomach	Glandular Stomach Forestomach	Atrophy, Focal Hyperplasia, Epithelial
Testis		Atrophy, Focal Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_042

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney	Pelvis	Hyperplasia, Epithelial
		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Mammary gland		Hyperplasia, Cystic
Oral mucosa	Palate Nos	Hyperplasia, Epithelial
Pancreas	Acinus	Necrosis, Focal
Pituitary gland	Intermedia	Cyst, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Inflammation, Suppurative
Seminal vesicle		Atrophy, Nos
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
	Forestomach	Ulcer, Nos
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_043

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Congestion, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Sclera	Mineralization
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Hepatocytes	Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Focal
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Hemorrhage
Oral mucosa	Palate Nos	Hyperplasia, Epithelial
Preputial gland		Atrophy, Nos
		Tissue Examined
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_044

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
	Atrium	Mineralization
Kidney	Pelvis	Dilatation, Nos
	Pelvis	Hyperplasia, Epithelial
		Hyperplasia, Tubular Cell
		Nephropathy
		Tubular-Cell Adenoma
Liver	Hepatocytes	Clear-Cell Change
	Bile Duct	Hyperplasia, Focal
Lymph node	Mesenteric Lymph Node	Edema, Nos
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Atrophy, Nos
		Inflammation, Suppurative
		Tissue Examined
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 3\_045

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Kidney		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
Pancreas	Acinus	Atrophy, Focal
Preputial gland		Atrophy, Nos
		Cyst, Nos
		Tissue Examined
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Trachea	Lumen	Foreign Body, Nos
	Lumen	Inflammation, Acute
	Submucosa	Inflammation, Chronic Focal
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_046

TRT#: 3

DOSE: 0

SEX: Male

DISP: Moribund Sacrifice

DAY ON TEST:

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Bone marrow		Hyperplasia, Granulocytic
Epididymis		Degeneration, Nos
Eye	Nasolacrimal Duct	Hemorrhage
Heart		Inflammation, Chronic Focal
Kidney		Inflammation, Acute Focal
		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Inflammation, Chronic Focal
Lung		Inflammation, Chronic Focal
Mammary gland		Pigmentation, Nos
Pancreas	Acinus	Atrophy, Focal
		Inflammation, Chronic Focal
Pituitary gland	Anterior Pituitary	Cyst, Nos
Preputial gland		Atrophy, Nos
		Inflammation, Suppurative
		Tissue Examined
Salivary gland		Hyperplasia, Intraductal
		Inflammation, Chronic Focal
Seminal vesicle		Atrophy, Nos
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
	Glandular Stomach	Inflammation, Chronic Focal
Testis		Atrophy, Diffuse
		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
Thymus		Involution, Nos
Thyroid		C-Cell Adenoma

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55936

**Test Type:** Long-Term

**Route:** Dosed-Feed

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Furosemide

**CAS Number:** 54-31-9

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

**Time Report Requested:** 12:00:06

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

**Lab:** NA

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**ANIMAL ID:** 3\_046

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Trachea  
Unspecified

Submucosa  
Chest  
Abdominal Cavity

Inflammation, Chronic Focal  
Fibroma  
Mesothelioma, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_047

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Degeneration, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Degeneration, Nos
Heart		Inflammation, Chronic Focal
Kidney		Cyst, Nos
	Pelvis	Hyperplasia, Epithelial
		Hyperplasia, Tubular Cell
		Nephropathy
		Pigmentation, Nos
Liver	Bile Duct	Hyperplasia, Focal
		Necrosis, Focal
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Inflammation, Acute Focal
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Pigmentation, Nos
Preputial gland		Atrophy, Nos
		Tissue Examined
Salivary gland		Hyperplasia, Intraductal
Seminal vesicle		Edema, Nos
		Inflammation, Chronic Focal
Stomach	Glandular Stomach	Atrophy, Focal
	Forestomach	Hyperplasia, Epithelial
Testis		Hyperplasia, Interstitial Cell
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_048

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Degeneration, Nos
	Cortex Nos	Hyperplasia, Focal
	Medulla	Hyperplasia, Nos
Heart		Inflammation, Chronic Focal
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Lung		Hyperplasia, Alveolar Epithelium
Lymph node	Mandibular Lymph Node	Hyperplasia, Plasma Cell
Mammary gland		Hyperplasia, Cystic
Nasal cavity		Inflammation, Acute Focal
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Atrophy, Nos
		Tissue Examined
Prostate		Inflammation, Chronic Focal
Seminal vesicle		Atrophy, Nos
Spleen		Hematopoiesis
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_049	TRT#: 3 DOSE: 0	SEX: Male DISP: Moribund Sacrifice	DAY ON TEST: HISTO:
<b>OBSERVATIONS</b>			
Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Pheochromocytoma	
Bone		Fibrous Osteodystrophy	
Epididymis		Degeneration, Nos	
Heart		Inflammation, Chronic Focal	
Kidney	Pelvis	Cyst, Nos Hyperplasia, Epithelial Nephropathy Pigmentation, Nos	
Liver	Hepatocytes Bile Duct	Cytoplasmic Change, Basophilic Hyperplasia, Focal Peliosis Hepatis	
Lymph node	Mandibular Lymph Node	Hemorrhage	
Nasal cavity		Inflammation, Acute Focal	
Pancreas	Acinus	Atrophy, Focal	
Parathyroid gland		Hyperplasia, Nos	
Pituitary gland	Anterior Pituitary	Angiectasis	
Preputial gland		Tissue Examined	
Stomach	Glandular Stomach	Atrophy, Focal	
Testis		Atrophy, Focal Interstitial-Cell Tumor	
Thymus		Involution, Nos	
Thyroid		Hyperplasia, C Cell	
Unspecified	Multiple Organs Nos	Mineralization	
PRIMARY CAUSE OF DEATH	-		

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C55936

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Furosemide

CAS Number: 54-31-9

Date Report Requested: 10/26/2014

Time Report Requested: 12:00:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3\_050

TRT#: 3

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Inflammation, Chronic Focal
Intestine Large	Rectum	Parasitism
Kidney		Nephropathy
Liver	Hepatocytes	Clear-Cell Change
	Hepatocytes	Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Focal
		Peliosis Hepatis
Pancreas	Acinus	Atrophy, Focal
Pituitary gland	Anterior Pituitary	Hyperplasia, Focal
Preputial gland		Hyperplasia, Nos
		Tissue Examined
Skin	Back	Basal-Cell Tumor
Stomach	Glandular Stomach	Atrophy, Focal
Testis		Atrophy, Focal
		Interstitial-Cell Tumor
Thymus		Involution, Nos
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

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\*\* END OF REPORT \*\*

\* PROTOCOL REQUIRED TISSUE