

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

C Number: C55652

Cage Range: All

Date Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: All

Study Gender: Female

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_051

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Kidney

Liver

Pancreas

Pituitary gland

Spleen

Stomach

Thyroid

Acinus

Anterior Pituitary

Intermedia

Glandular Stomach

Nephropathy

Cytoplasmic Change, Basophilic

Granuloma, Nos

Atrophy, Nos

Adenoma, Nos

Angiectasis

Hemosiderosis

Cyst, Multiple

C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_052

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Atypical |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_053

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Mammary gland

Cytoplasmic Change, Basophilic

Pituitary gland

Anterior Pituitary

Hyperplasia, Cystic

Spleen

Adenoma, Nos

Stomach

Leukemia, Mononuclear Cell

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_054

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Liver | | Cytoplasmic Change, Basophilic |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Fibroadenoma |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Spleen | | Leukemia, Mononuclear Cell |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | Endometrial Gland | Cyst, Nos |
| | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_055

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Cortex Nos

Degeneration, Nos

Medulla

Hyperplasia, Focal

Medulla

Pheochromocytoma

Heart

Myocardium Nos

Fibrosis

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Pancreas

Acinus

Atrophy, Nos

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

Hyperplasia, C Cell

Uterus

Endometrial Gland

Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_056

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thymus | | Hemorrhage |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Ear | Neurofibrosarcoma |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_057

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

Bone marrow

Heart

Intestine Small

Liver

Thymus

Uterus

Myocardium Nos

Ileum

Endometrial Gland

Hyperplasia, Nos

Degeneration, Nos

Leiomyoma

Cytoplasmic Change, Basophilic

Hemorrhage

Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_058

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|---------|-------------------------|--------------------------------|
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_059

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|--------------------------------|
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Congestion, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Intermedia | Angiectasis |
| | Anterior Pituitary | Cyst, Nos |
| Spleen | | Hemosiderosis |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_060

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_061

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Anterior Pituitary

Angiectasis

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Uterus

Endometrial Gland

Cyst, Nos

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_062

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

Bone marrow

Heart

Liver

Pituitary gland

Unspecified

Uterus

Myocardium Nos

Periportal Bile Ductule

Anterior Pituitary

Multiple Organs Nos

Hyperplasia, Nos

Fibrosis

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Angiectasis

Leukemia, Mononuclear Cell

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_063

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| | | Necrosis, Focal |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Cyst, Nos |
| | Anterior Pituitary | Hyperplasia, Focal |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_064

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | | Cortical Adenoma |
| | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Degeneration, Nos |
| | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Hepatocytes | Cytoplasmic Vacuolization |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Angiectasis |
| Spleen | | Hemosiderosis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_065

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Cortex Nos

Metamorphosis, Fatty

Bone marrow

Hyperplasia, Nos

Liver

Cytoplasmic Change, Basophilic

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_066

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Pituitary gland

Periportal Bile Ductule

Hyperplasia, Nos

Spleen

Anterior Pituitary

Adenoma, Nos

Hemosiderosis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_067

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|----------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Degeneration, Nos |
| | Myocardium Nos | Fibrosis |
| Liver | | Angiectasis |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Lung | Alveoli | Edema, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_068

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Heart
Kidney

Cortex Nos
Myocardium Nos

Angiectasis
Fibrosis
Mineralization
Nephropathy
Cytoplasmic Change, Basophilic
Adenoma, Nos
Hyperplasia, Focal
Cyst, Multiple
Endometrial Stromal Polyp

Liver
Pituitary gland

Stomach
Uterus

Anterior Pituitary
Anterior Pituitary
Glandular Stomach

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_069

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| | Anterior Pituitary | Hyperplasia, Focal |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | C-Cell Carcinoma |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_070

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Hepatocytes | Cytoplasmic Vacuolization |
| | | Granuloma, Nos |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Spleen | | Leukemia, Mononuclear Cell |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_071

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|----------------------------|
| Bone marrow | | Hyperplasia, Nos |
| Kidney | | Pigmentation, Nos |
| Liver | Periportal Bile Ductule | Hyperplasia, Nos |
| | | Metamorphosis, Fatty |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_072

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

Hyperplasia, C Cell

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_073

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Brain
Kidney
Liver

Cortex Nos

Angiectasis
Hydrocephalus, Nos
Nephropathy
Cytoplasmic Change, Basophilic
Granuloma, Nos

Lymph node
Mammary gland
Pancreas
Pituitary gland
Spleen
Stomach

Mandibular Lymph Node

Lymphangiectasis
Hyperplasia, Cystic
Atrophy, Nos
Adenoma, Nos
Hemosiderosis
Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_074

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Heart
Kidney
Liver

Cortex Nos
Myocardium Nos

Angiectasis
Fibrosis
Nephropathy
Cytoplasmic Change, Basophilic
Focal Cellular Change

Ovary
Pituitary gland

Periportal Bile Ductule

Granuloma, Nos
Hyperplasia, Nos
Cyst, Nos

Stomach
Thyroid
Uterus

Anterior Pituitary
Anterior Pituitary
Anterior Pituitary
Glandular Stomach

Angiectasis
Cyst, Nos
Hyperplasia, Focal
Cyst, Multiple
Hyperplasia, C Cell
Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_075

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Cortical Adenoma

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos

Mammary gland

Fibroadenoma

Pancreas

Acinus

Atrophy, Nos

Pituitary gland

Anterior Pituitary

Angiectasis

Thyroid

Hyperplasia, C Cell

Uterus

Endometrial Gland

Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_076

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| Pituitary gland | Intermedia | Angiectasis |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_077

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Degeneration, Lipoid

Bone marrow

Hyperplasia, Nos

Pituitary gland

Anterior Pituitary

Angiectasis

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

Adipose Tissue

Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_078

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--|--|
| Adrenal gland | Cortex Nos Cortex Nos | Angiectasis Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic Granuloma, Nos |
| Pituitary gland | Anterior Pituitary Anterior Pituitary | Adenoma, Nos Angiectasis |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_079

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Lymph node

Cytoplasmic Change, Basophilic

Pituitary gland

Mandibular Lymph Node

Lymphangiectasis

Spleen

Anterior Pituitary

Adenoma, Nos

Stomach

Glandular Stomach

Hemosiderosis

Thymus

Cyst, Multiple

Thymoma, Benign

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_080

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Angiectasis

Thyroid

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_081

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Kidney
Liver

Cortex Nos

Angiectasis
Nephropathy
Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos
Hyperplasia, Cystic

Mammary gland

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

Hyperplasia, C Cell

Uterus

Endometrial Gland

Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_082

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Clear-Cell Change

Mammary gland

Periportal Bile Ductule

Cytoplasmic Change, Basophilic

Pituitary gland

Anterior Pituitary

Hyperplasia, Nos

Stomach

Glandular Stomach

Hyperplasia, Cystic

Thyroid

Adenoma, Nos

Cyst, Multiple

Uterus

Endometrial Gland

C-Cell Adenoma

Hyperplasia, C Cell

Cyst, Nos

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_083

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|---------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Heart | Myocardium Nos | Fibrosis |
| Intestine Small | Ileum | Leiomyosarcoma |
| Kidney | | Nephropathy |
| Liver | Periportal Bile Ductule | Hyperplasia, Nos |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Intermedia | Angiectasis |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_084

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Cortex Nos

Degeneration, Ballooning

Cortex Nos

Hyperplasia, Focal

Blood vessel

Pulmonary Artery Nos

Mineralization

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Ovary

Cyst, Nos

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_085

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Anterior Pituitary

Angiectasis

Uterus

Endometrial Gland

Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_086

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Bone marrow

Hyperplasia, Nos

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Necrosis, Coagulative

Lung

Alveoli

Edema, Nos

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

Adipose Tissue

Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_087

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Pituitary gland

Anterior Pituitary

Angiectasis

Anterior Pituitary

Hyperplasia, Focal

Spleen

Leukemia, Mononuclear Cell

Stomach

Glandular Stomach

Cyst, Multiple

Uterus

Adenomyosis

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_088

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Hepatocytes | Cytoplasmic Vacuolization |
| | | Granuloma, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Angiectasis |
| Spleen | | Leukemia, Mononuclear Cell |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | C-Cell Carcinoma |
| | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_089

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Granuloma, Nos |
| Mammary gland | | Hyperplasia, Nos |
| Pituitary gland | Anterior Pituitary | Hyperplasia, Cystic |
| | Anterior Pituitary | Adenoma, Nos |
| Stomach | Glandular Stomach | Hyperplasia, Focal |
| Thyroid | | Cyst, Multiple |
| Uterus | | Hyperplasia, C Cell |
| | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_090

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Kidney

Cortex Nos

Hyperplasia, Focal

Liver

Nephropathy

Mammary gland

Periportal Bile Ductule

Granuloma, Nos

Pituitary gland

Anterior Pituitary

Hyperplasia, Nos

Spleen

Hyperplasia, Cystic

Stomach

Glandular Stomach

Papillary Adenocarcinoma

Adenoma, Nos

Hemosiderosis

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_091

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Pancreas

Acinus

Necrosis, Focal

Pituitary gland

Anterior Pituitary

Atrophy, Nos

Stomach

Glandular Stomach

Cyst, Nos

Thyroid

Cyst, Multiple

Uterus

Endometrial Gland

C-Cell Adenoma

Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_092

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Clitoral gland | | Adenoma, Nos |
| Heart | Myocardium Nos | Fibrosis |
| | Myocardium Nos | Inflammation, Chronic |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| | | Metamorphosis, Fatty |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Cyst, Follicular Nos |
| Unspecified | Adipose Tissue | Necrosis, Fat |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_093

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Bone marrow

Fibrosis, Myelo

Kidney

Hyperplasia, Nos

Liver

Periportal Bile Ductule

Nephropathy

Mammary gland

Hyperplasia, Nos

Pituitary gland

Anterior Pituitary

Hyperplasia, Cystic

Unspecified

Multiple Organs Nos

Angiectasis

Uterus

Leukemia, Mononuclear Cell

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_094

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|----------------------------|
| Blood vessel | Pulmonary Artery Nos | Mineralization |
| Heart | Myocardium Nos | Fibrosis |
| Liver | Periportal Bile Ductule | Hyperplasia, Nos |
| Lung | Alveoli | Edema, Nos |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_095

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Liver

Cytoplasmic Change, Basophilic

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Pancreas

Acinus

Atrophy, Nos

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Spleen

Leukemia, Mononuclear Cell

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_096

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Mammary gland

Hyperplasia, Cystic

Pancreas

Acinus

Atrophy, Nos

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Unspecified

Cyst, Epidermal Inclusion

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_097

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Cortex Nos

Hyperplasia, Focal

Medulla

Pheochromocytoma

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_098

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Bone marrow

Hyperplasia, Nos

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Spleen

Granuloma, Nos

Hemosiderosis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_099

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Pituitary gland

Anterior Pituitary

Angiectasis

Intermedia

Angiectasis

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_100

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 250 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Cortex Nos

Hyperplasia, Focal

Bone marrow

Fibrosis, Myelo

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Lung

Perivascular Cuffing

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Mammary gland

Adenoma, Nos

Fibroadenoma

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Spleen

Hematopoiesis

Stomach

Glandular Stomach

Cyst, Multiple

Thymus

Hemorrhage

Thyroid

Hyperplasia, C Cell

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_001

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Kidney

Cortex Nos

Hyperplasia, Focal

Liver

Nephropathy

Clear-Cell Change

Cytoplasmic Change, Basophilic

Pituitary gland

Periportal Bile Ductule

Hyperplasia, Nos

Stomach

Anterior Pituitary

Angiectasis

Thymus

Glandular Stomach

Cyst, Multiple

Thyroid

Hemorrhage

C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_002

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| Lung | | Perivascular Cuffing |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Hypertrophy, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Angiectasis |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| | Adipose Tissue | Necrosis, Fat |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_003

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Spleen | | Necrosis, Nos |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | Endometrial Gland | Cyst, Nos |
| | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_004

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Hyperplasia, Nos |
| Eye | Retina | Atrophy, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| | Intermedia | Angiectasis |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | | Leiomyoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_005

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Cortex Nos

Degeneration, Cystic

Cortex Nos

Hyperplasia, Focal

Bone marrow

Fibrosis, Myelo

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Ground-Glass

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Anterior Pituitary

Angiectasis

Spleen

Hematopoiesis

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_006

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Tongue | | Squamous Cell Papilloma |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_007

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--|
| Adrenal gland | Cortex Nos Medulla | Angiectasis Pheochromocytoma |
| Brain | | Hydrocephalus, Nos |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Granuloma, Nos |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | Endometrial Gland | Cyst, Nos Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_008

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Heart
Liver

Cortex Nos
Myocardium Nos

Angiectasis
Fibrosis
Cytoplasmic Change, Basophilic
Granuloma, Nos
Hyperplasia, Nos
Angiectasis
Hemosiderosis
Cyst, Multiple
C-Cell Adenoma

Pituitary gland
Spleen
Stomach
Thyroid

Periportal Bile Ductule
Anterior Pituitary

Glandular Stomach

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_009

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Eye

Cortex Nos

Hyperplasia, Focal

Heart

Retina

Atrophy, Nos

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Clear-Cell Change

Cytoplasmic Change, Basophilic

Granuloma, Nos

Lymph node

Periportal Bile Ductule

Hyperplasia, Nos

Pancreas

Mandibular Lymph Node

Lymphangiectasis

Pituitary gland

Acinus

Atrophy, Nos

Spleen

Anterior Pituitary

Adenoma, Nos

Uterus

Anterior Pituitary

Hyperplasia, Focal

Hemosiderosis

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_010

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos

Mammary gland

Fibroadenoma

Spleen

Hyperplasia, Cystic

Stomach

Glandular Stomach

Hemosiderosis

Thyroid

Cyst, Multiple

Cyst, Follicular Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_011

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| | Anterior Pituitary | Hyperplasia, Focal |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_012

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|----------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Liver | | Cytoplasmic Change, Eosinophilic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Angiectasis |
| | Anterior Pituitary | Hyperplasia, Focal |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | Endometrial Gland | Cyst, Nos |
| | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_013

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos

Pancreas

Acinus

Atrophy, Nos

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Thymus

Hemorrhage

Thyroid

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_014

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Hepatocytes

Cytoplasmic Vacuolization

Granuloma, Nos

Periportal Bile Ductule

Hyperplasia, Nos

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Stomach

Anterior Pituitary

Angiectasis

Thyroid

Glandular Stomach

Cyst, Multiple

Uterus

Hyperplasia, C Cell

Hydrometra

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_015

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Kidney

Cortex Nos

Hyperplasia, Focal

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Pancreas

Acinus

Focal Cellular Change

Pituitary gland

Anterior Pituitary

Atrophy, Nos

Spleen

Anterior Pituitary

Angiectasis

Stomach

Glandular Stomach

Hyperplasia, Focal

Hemosiderosis

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_016

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Lymph node

Periportal Bile Ductule

Granuloma, Nos

Mammary gland

Mandibular Lymph Node

Hyperplasia, Nos

Lymphangiectasis

Pituitary gland

Anterior Pituitary

Fibroadenoma

Hyperplasia, Cystic

Spleen

Adenoma, Nos

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_017

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Kidney
Liver

Cortex Nos

Angiectasis
Nephropathy
Cytoplasmic Change, Basophilic
Granuloma, Nos

Lymph node
Mammary gland
Pancreas
Pituitary gland

Periportal Bile Ductule
Mandibular Lymph Node

Hyperplasia, Nos
Lymphangiectasis
Hyperplasia, Cystic
Hypertrophy, Nos
Adenoma, Nos
Hyperplasia, Focal

Salivary gland
Stomach
Uterus

Acinus
Anterior Pituitary
Anterior Pituitary
Glandular Stomach

Atrophy, Nos
Cyst, Multiple
Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_018

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-------------------|-----------------------|-------------------------------------|
| Bone marrow | | Hyperplasia, Nos |
| Kidney | Convolutated Tubules | Metamorphosis, Fatty Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Edema, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Parathyroid gland | | Hyperplasia, Focal |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Spleen | | Fibrosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thymus | | Hemorrhage |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_019

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Eye | Retina | Atrophy, Nos |
| | Lens, Cortex | Mineralization |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| | | Metamorphosis, Fatty |
| | | Nuclear Alteration |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_020

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Anterior Pituitary

Angiectasis

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_021

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Lymph node

Periportal Bile Ductule

Granuloma, Nos

Mammary gland

Mandibular Lymph Node

Hyperplasia, Nos

Pituitary gland

Anterior Pituitary

Lymphangiectasis

Stomach

Anterior Pituitary

Hyperplasia, Cystic

Uterus

Glandular Stomach

Adenoma, Nos

Angiectasis

Cyst, Multiple

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_022

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|----------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Degeneration, Nos |
| | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Angiectasis |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| | | Necrosis, Coagulative |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| | | Edema, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Spleen | Capsule | Fibrosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thymus | | Cyst, Nos |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | Endometrial Gland | Cyst, Nos |
| | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_023

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Bone marrow
Liver

Cortex Nos

Metamorphosis, Fatty
Hyperplasia, Nos
Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos
Hyperplasia, Cystic

Mammary gland
Pituitary gland
Stomach
Unspecified
Uterus

Anterior Pituitary

Angiectasis

Glandular Stomach

Cyst, Multiple

Multiple Organs Nos

Leukemia, Mononuclear Cell

Endometrial Gland

Cyst, Nos

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_024

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Kidney
Liver

Cortex Nos

Angiectasis
Nephropathy
Cytoplasmic Change, Basophilic
Granuloma, Nos

Periportal Bile Ductule

Hyperplasia, Nos
Neoplastic Nodule

Mammary gland

Hyperplasia, Cystic

Stomach

Glandular Stomach

Cyst, Multiple

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_025

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Focal Cellular Change

Granuloma, Nos

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Mammary gland

Hyperplasia, Cystic

Pancreas

Acinus

Atrophy, Nos

Stomach

Forestomach

Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_026

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Lymph node

Mandibular Lymph Node

Lymphangiectasis

Pancreas

Acinus

Atrophy, Nos

Spleen

Hemosiderosis

Stomach

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_027

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Angiectasis |
| Skin | | Inflammation, Chronic |
| Spleen | | Hemosiderosis |
| Urinary bladder | | Inflammation, Acute |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_028

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Periportal Bile Ductule

Hyperplasia, Nos

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_029

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Cortical Adenoma

Bone marrow

Heart

Kidney

Liver

Myocardium Nos

Hyperplasia, Focal

Hyperplasia, Nos

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos

Mammary gland

Hyperplasia, Cystic

Papillary Adenocarcinoma

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Thyroid

Hyperplasia, C Cell

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_030

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Stomach

Glandular Stomach

Cyst, Multiple

Thymus

Hemorrhage

Uterus

Endometrial Gland

Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_031

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Degeneration, Nos |
| | Myocardium Nos | Fibrosis |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| | | Metamorphosis, Fatty |
| Lung | Alveoli | Edema, Nos |
| Mammary gland | | Fibroadenoma |
| | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Angiectasis |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_032

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|----------------------------|
| Adrenal gland | Medulla | Ganglioneuroma |
| | Medulla | Pheochromocytoma |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | Periportal Bile Ductule | Angiectasis |
| | | Hyperplasia, Nos |
| | | Necrosis, Coagulative |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | Endometrial Gland | Cyst, Nos |
| | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_033

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Cortex Nos

Metamorphosis, Fatty

Medulla

Pheochromocytoma

Bone marrow

Hyperplasia, Nos

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Metamorphosis, Fatty

Thyroid

Hyperplasia, C Cell

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_034

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Periportal Bile Ductule

Granuloma, Nos

Hyperplasia, Nos

Neoplastic Nodule

Mammary gland

Hyperplasia, Cystic

Ovary

Granulosa-Cell Tumor

Pancreas

Acinus

Atrophy, Nos

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Stomach

Glandular Stomach

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_035

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Mammary gland

Fibroadenoma

Pituitary gland

Anterior Pituitary

Hyperplasia, Cystic

Spleen

Carcinoma, Nos

Stomach

Hemosiderosis

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_036

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Clitoral gland

Cortex Nos

Hyperplasia, Focal

Kidney

Adenoma, Nos

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Lymph node

Granuloma, Nos

Mammary gland

Lymphangiectasis

Pituitary gland

Fibroadenoma

Stomach

Anterior Pituitary

Angiectasis

Thyroid

Glandular Stomach

Cyst, Multiple

Uterus

Endometrial Gland

Hyperplasia, C Cell

Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_037

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Granuloma, Nos

Lymph node

Periportal Bile Ductule

Hyperplasia, Nos

Ovary

Mandibular Lymph Node

Lymphangiectasis

Pituitary gland

Anterior Pituitary

Cyst, Nos

Spleen

Anterior Pituitary

Adenoma, Nos

Stomach

Glandular Stomach

Angiectasis

Uterus

Endometrial Gland

Hemosiderosis

Cyst, Multiple

Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_038

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Heart
Kidney
Liver

Cortex Nos
Myocardium Nos

Angiectasis
Fibrosis
Nephropathy
Cytoplasmic Change, Basophilic
Granuloma, Nos
Hyperplasia, Nos
Lymphangiectasis
Hyperplasia, Cystic
Adenoma, Nos
Hemosiderosis
Cyst, Multiple
C-Cell Carcinoma

Lymph node
Mammary gland
Pituitary gland
Spleen
Stomach
Thyroid

Periportal Bile Ductule
Mandibular Lymph Node

Anterior Pituitary

Glandular Stomach

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_039

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Kidney
Liver

Cortex Nos

Angiectasis
Nephropathy
Cytoplasmic Change, Basophilic

Pancreas
Pituitary gland
Spleen
Stomach

Periportal Bile Ductule
Acinus
Anterior Pituitary

Hyperplasia, Nos
Atrophy, Nos
Angiectasis
Hemosiderosis
Cyst, Multiple

Glandular Stomach

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_040

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Liver

Cortex Nos
Periportal Bile Ductule

Metamorphosis, Fatty
Hyperplasia, Nos
Metamorphosis, Fatty

Mammary gland
Pancreas
Pituitary gland
Stomach

Acinus
Anterior Pituitary
Glandular Stomach

Hyperplasia, Cystic
Atrophy, Nos
Adenoma, Nos
Cyst, Multiple
Hyperplasia, Epithelial

Unspecified
Uterus

Forestomach
Forestomach
Multiple Organs Nos
Endometrial Gland

Ulcer, Nos
Leukemia, Mononuclear Cell
Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_041

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|---------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Pneumonia, Interstitial Chronic |
| Mammary gland | | Fibroadenoma |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Salivary gland | | Atrophy, Nos |
| Spleen | | Hematopoiesis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | C-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_042

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Brain

Cortex Nos

Hyperplasia, Focal

Kidney

Oligodendroglioma

Liver

Nephropathy

Lung

Cytoplasmic Change, Basophilic

Pituitary gland

Anterior Pituitary

Perivascular Cuffing

Spleen

Hyperplasia, Focal

Stomach

Glandular Stomach

Hemosiderosis

Trachea

Cyst, Multiple

Uterus

Inflammation, Chronic

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_043

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|--|
| Adrenal gland | Cortex Nos Medulla | Hyperplasia, Focal Pheochromocytoma |
| Bone marrow | | Hyperplasia, Nos |
| Clitoral gland | | Adenoma, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Pneumonia, Interstitial Chronic |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | C-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_044

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Kidney
Liver

Cortex Nos

Angiectasis
Nephropathy
Angiectasis
Cytoplasmic Change, Basophilic

Stomach
Thyroid
Unspecified

Periportal Bile Ductule
Glandular Stomach

Hyperplasia, Nos
Cyst, Multiple
Hyperplasia, C Cell
Leukemia, Mononuclear Cell

Multiple Organs Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_045

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Degeneration, Nos

Liver

Nephropathy

Pituitary gland

Anterior Pituitary

Cytoplasmic Change, Basophilic

Spleen

Angiectasis

Hemosiderosis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_046

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Spleen

Cytoplasmic Change, Basophilic

Stomach

Glandular Stomach

Hematopoiesis

Uterus

Cyst, Multiple

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_047

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Pancreas

Acinus

Granuloma, Nos

Pituitary gland

Anterior Pituitary

Hypertrophy, Nos

Anterior Pituitary

Angiectasis

Spleen

Cyst, Nos

Stomach

Glandular Stomach

Hemosiderosis

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_048

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Kidney | | Nephropathy |
| Liver | | Angiectasis |
| | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| | | Hyperplasia, Focal |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Hyperplasia, Focal |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_049

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Unspecified | Adipose Tissue | Necrosis, Fat |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_050

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 125 PPM

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Kidney

Cortex Nos

Hyperplasia, Focal

Liver

Nephropathy

Lymph node

Periportal Bile Ductule

Cytoplasmic Change, Basophilic

Mammary gland

Mandibular Lymph Node

Hyperplasia, Nos

Pituitary gland

Anterior Pituitary

Lymphangiectasis

Spleen

Fibroadenoma

Stomach

Glandular Stomach

Angiectasis

Thyroid

Hemosiderosis

Uterus

Endometrial Gland

Cyst, Multiple

Hyperplasia, C Cell

Cyst, Nos

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_101

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Liver

Myocardium Nos

Inflammation, Chronic

Mammary gland

Cytoplasmic Change, Basophilic

Fibroadenoma

Pituitary gland

Anterior Pituitary

Hyperplasia, Cystic

Spleen

Adenoma, Nos

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_102

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos

Pancreas

Acinus

Atrophy, Nos

Pituitary gland

Anterior Pituitary

Angiectasis

Anterior Pituitary

Cyst, Nos

Anterior Pituitary

Hyperplasia, Focal

Stomach

Glandular Stomach

Cyst, Multiple

Thymus

Cyst, Nos

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_103

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Fibrosis, Myelo |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Clear-Cell Change |
| | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Ovary | | Cyst, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Cyst, Nos |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_104

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Cortex Nos

Hyperplasia, Focal

Brain

Cortex

Astrocytoma

Heart

Myocardium Nos

Fibrosis

Myocardium Nos

Inflammation, Chronic

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Lung

Hyperplasia, Alveolar Epithelium

Pancreas

Acinus

Atrophy, Nos

Pituitary gland

Anterior Pituitary

Angiectasis

Anterior Pituitary

Hyperplasia, Focal

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652
Test Type: Long-Term
Route: Dosed-Feed
Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: Ephedrine sulfate
CAS Number: 134-72-5

Date Report Requested: 10/26/2014
Time Report Requested: 13:34:06
First Dose M/F: NA / NA
Lab: NA

ANIMAL ID: 3_105

TRT#: 3
DOSE: 0

SEX: Female
DISP: Moribund Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|--------------------------------|
| Adrenal gland | | Cortical Adenoma |
| | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Fibrosis, Myelo |
| | | Hyperplasia, Nos |
| Eye | Retina | Atrophy, Nos |
| | Lens, Cortex | Mineralization |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Angiectasis |
| | | Cytoplasmic Change, Basophilic |
| | | Focal Cellular Change |
| | | Necrosis, Nos |
| Pancreas | Acinus | Atrophy, Nos |
| | Interstitium | Inflammation, Chronic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| | Anterior Pituitary | Hyperplasia, Focal |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_106

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Bone marrow

Cortex Nos

Hyperplasia, Focal

Liver

Hyperplasia, Nos

Mammary gland

Cytoplasmic Change, Basophilic

Pituitary gland

Anterior Pituitary

Hyperplasia, Cystic

Salivary gland

Carcinoma, Nos

Spleen

Atrophy, Nos

Stomach

Glandular Stomach

Hematopoiesis

Uterus

Cyst, Multiple

Endometrial Stromal Polyp

Inflammation, Active Chronic

Prolapse

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_107

TRT#: 3

DOSE: 0

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST:

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|----------------------------|
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | Periportal Bile Ductule | Hyperplasia, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Salivary gland | | Atrophy, Nos |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_108

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Liver

Ovary

Pancreas

Pituitary gland

Thyroid

Unspecified

Cortex Nos

Myocardium Nos

Periportal Bile Ductule

Islets

Anterior Pituitary

Cortical Adenoma

Hyperplasia, Focal

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Cyst, Nos

Islet-Cell Adenoma

Hyperplasia, Focal

Hyperplasia, C Cell

Cyst, Epidermal Inclusion

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_109

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Granuloma, Nos

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Angiectasis

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

Hyperplasia, C Cell

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_110

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Anterior Pituitary

Angiectasis

Spleen

Hemosiderosis

Stomach

Glandular Stomach

Cyst, Multiple

Thymus

Cyst, Nos

Uterus

Leiomyosarcoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_111

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| | | Pigmentation, Nos |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Spleen | | Hematopoiesis |
| Unspecified | Multiple Organs Nos | Mesothelioma, Malignant |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_112

TRT#: 3

DOSE: 0

SEX: Female

DISP: Moribund Sacrifice

DAY ON TEST:

HISTO:

OBSERVATIONS

Bone marrow

Liver

Mammary gland

Pituitary gland

Anterior Pituitary

Intermedia

Anterior Pituitary

Spleen

Uterus

Hyperplasia, Nos

Cytoplasmic Change, Basophilic

Hyperplasia, Cystic

Angiectasis

Angiectasis

Hyperplasia, Focal

Hematopoiesis

Adenocarcinoma, Nos

Inflammation, Acute Hemorrhagic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_113

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--|---|
| Adrenal gland | Cortex Nos | Angiectasis Cortical Adenoma |
| Heart | Cortex Nos Myocardium Nos Myocardium Nos | Hyperplasia, Focal Degeneration, Nos Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic Hyperplasia, Nos |
| Pancreas | Periportal Bile Ductule Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary Anterior Pituitary | Angiectasis Hyperplasia, Focal |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_114

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Degeneration, Nos

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Mammary gland

Granuloma, Nos

Neoplastic Nodule

Pituitary gland

Anterior Pituitary

Fibroadenoma

Salivary gland

Angiectasis

Spleen

Atrophy, Nos

Stomach

Glandular Stomach

Hyperplasia, Lymphoid

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_115

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--|--|
| Adrenal gland | Cortex Nos Medulla | Angiectasis Pheochromocytoma |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic Granuloma, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary Anterior Pituitary | Adenoma, Nos Angiectasis |
| Spleen | | Leukemia, Mononuclear Cell |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Follicular-Cell Adenoma Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_116

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Clitoral gland | | Adenoma, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_117

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|----------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| | Myocardium Nos | Inflammation, Chronic |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Lung | | Hyperplasia, Alveolar Epithelium |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Spleen | | Fibrosis |
| | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_119

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Angiectasis |
| | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| Mammary gland | | Fibroadenoma |
| | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Tail | Neurofibrosarcoma |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_120

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Fibrosis, Myelo |
| Clitoral gland | | Adenoma, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Mammary gland | | Fibroadenoma |
| | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_121

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Myocardium Nos

Fibrosis

Kidney

Myocardium Nos

Inflammation, Chronic

Liver

Nephropathy

Angiectasis

Cytoplasmic Change, Basophilic

Mammary gland

Granuloma, Nos

Fibroadenoma

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Stomach

Glandular Stomach

Cyst, Multiple

Thyroid

Hyperplasia, C Cell

Uterus

Endometrial Gland

Cyst, Nos

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_122

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Hyperplasia, Nos |
| Eye | Retina | Atrophy, Nos |
| | Lens, Cortex | Mineralization |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | Endometrial Gland | Cyst, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_123

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Bone marrow

Cortex Nos

Metamorphosis, Fatty

Liver

Hyperplasia, Nos

Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos

Metamorphosis, Fatty

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Angiectasis

Stomach

Glandular Stomach

Cyst, Multiple

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_124

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|----------------------------|
| Adrenal gland | Cortex Nos | Metamorphosis, Fatty |
| Bone marrow | | Hyperplasia, Nos |
| Brain | | Hemorrhage |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | Periportal Bile Ductule | Hyperplasia, Nos |
| | | Metamorphosis, Fatty |
| | | Necrosis, Coagulative |
| Mammary gland | | Fibroadenoma |
| | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| | Intermedia | Angiectasis |
| | Anterior Pituitary | Hyperplasia, Focal |
| Spleen | | Ectopia |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_125

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | Periportal Bile Ductule | Hyperplasia, Nos |
| Lung | | C-Cell Carcinoma, Metastatic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| | Anterior Pituitary | Hypertrophy, Focal |
| Spleen | | Hematopoiesis |
| | | Hemosiderosis |
| Thyroid | | C-Cell Carcinoma |
| Unspecified | Adipose Tissue | Necrosis, Fat |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_126

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Clitoral gland | | Adenoma, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thymus | | Hemorrhage |
| Thyroid | | C-Cell Carcinoma |
| Unspecified | Adipose Tissue | Necrosis, Fat |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_127

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | C-Cell Adenoma |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_128

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Brain

Hydrocephalus, Nos

Heart

Myocardium Nos

Inflammation, Chronic

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Periportal Bile Ductule

Hyperplasia, Nos

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Spleen

Hemosiderosis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_129

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Bone marrow

Hyperplasia, Nos

Clitoral gland

Carcinoma, Nos

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Mammary gland

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Angiectasis

Anterior Pituitary

Hyperplasia, Focal

Spleen

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_130

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|--------------------------------|
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_131

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Inflammation, Chronic

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Mammary gland

Granuloma, Nos

Fibroadenoma

Pituitary gland

Anterior Pituitary

Hyperplasia, Cystic

Adenoma, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_132

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|----------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Eye | Retina | Atrophy, Nos |
| | Lens, Cortex | Mineralization |
| Heart | Mitral Valve Nos | Inflammation, Chronic |
| | Myocardium Nos | Inflammation, Chronic |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Cytoplasmic Change, Eosinophilic |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Intermedia | Angiectasis |
| | Anterior Pituitary | Carcinoma, Nos |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_133

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Metamorphosis, Fatty |
| Mammary gland | | Adenocarcinoma, Nos |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Spleen | | Hemosiderosis |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_134

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Inflammation, Chronic

Liver

Nephropathy

Mammary gland

Cytoplasmic Change, Basophilic

Fibroadenoma

Pituitary gland

Anterior Pituitary

Hyperplasia, Cystic

Spleen

Adenoma, Nos

Uterus

Hemosiderosis

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_135

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------------------|---|
| Adrenal gland | Cortex Nos Cortex Nos Medulla | Angiectasis Hyperplasia, Focal Hyperplasia, Focal |
| Clitoral gland | | Adenoma, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Hepatocytes | Cytoplasmic Vacuolization |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Salivary gland | | Inflammation, Active Chronic |
| Spleen | | Hematopoiesis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| | Adipose Tissue | Necrosis, Fat |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_136

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|----------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| | Cortex Nos | Metamorphosis, Fatty |
| Brain | | Hemorrhage |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Metamorphosis, Fatty |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| | Forestomach | Ulcer, Nos |
| Thymus | | Cyst, Nos |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_137

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|----------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Granuloma, Nos |
| | | Neoplastic Nodule |
| Mammary gland | | Galactocele |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| | Anterior Pituitary | Cyst, Nos |
| | Anterior Pituitary | Hyperplasia, Focal |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_138

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Bone marrow

Hyperplasia, Nos

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Mammary gland

Granuloma, Nos

Fibroadenoma

Pancreas

Acinus

Hyperplasia, Cystic

Pituitary gland

Anterior Pituitary

Atrophy, Nos

Stomach

Glandular Stomach

Adenoma, Nos

Cyst, Multiple

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_139

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

Bone marrow
Liver
Pancreas
Pituitary gland
Spleen
Uterus

Acinus
Anterior Pituitary

Hyperplasia, Nos
Cytoplasmic Change, Basophilic
Atrophy, Nos
Angiectasis
Hematopoiesis
Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_140

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Metamorphosis, Fatty

Lung

Congestion, Nos

Spleen

Edema, Nos

Hemosiderosis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_141

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| | Intermedia | Cyst, Nos |
| | Anterior Pituitary | Hyperplasia, Focal |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |
| | Adipose Tissue | Necrosis, Fat |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_142

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|----------------|-----------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Clitoral gland | | Inflammation, Active Chronic |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Perivascular Cuffing |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | C-Cell Adenoma |
| | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_143

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Periportal Bile Ductule

Nephropathy

Mammary gland

Granuloma, Nos

Pancreas

Acinus

Hyperplasia, Nos

Pituitary gland

Anterior Pituitary

Hyperplasia, Cystic

Stomach

Glandular Stomach

Atrophy, Nos

Thyroid

Angiectasis

Cyst, Multiple

C-Cell Adenoma

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_144

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------------|
| Bone marrow | | Fibrosis, Myelo |
| Kidney | | Cyst, Nos |
| Liver | | Cytoplasmic Change, Basophilic |
| | Periportal Bile Ductule | Hemosiderosis |
| | | Hyperplasia, Nos |
| | Centrilobular | Metamorphosis, Fatty |
| | | Necrosis, Nos |
| Mammary gland | | Hyperplasia, Cystic |
| Ovary | | Cyst, Nos |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Unspecified | Multiple Organs Nos | Lymphoma, Lymphocytic-Malignant Type |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_145

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-------------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| | Periportal Bile Ductule | Hyperplasia, Nos |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_146

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|---------------|-------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Granuloma, Nos |
| Mammary gland | | Fibroadenoma |
| | | Hyperplasia, Cystic |
| Pancreas | Acinus | Atrophy, Nos |
| Spleen | | Hematopoiesis |
| | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | C-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_147

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------------|----------------------|
| Brain | | Hydrocephalus, Nos |
| Clitoral gland | | Adenoma, Nos |
| Kidney | | Nephropathy |
| Lung | | Perivascular Cuffing |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Unspecified | Adipose Tissue | Necrosis, Fat |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_148

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Clear-Cell Change |
| | | Cytoplasmic Change, Basophilic |
| Lymph node | Mandibular Lymph Node | Lymphangiectasis |
| Mammary gland | | Hyperplasia, Cystic |
| Pituitary gland | Anterior Pituitary | Adenoma, Nos |
| | Anterior Pituitary | Angiectasis |
| | Anterior Pituitary | Hyperplasia, Focal |
| Spleen | | Hemosiderosis |
| Stomach | Glandular Stomach | Cyst, Multiple |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_149

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Angiectasis |
| | Cortex Nos | Hyperplasia, Focal |
| Bone marrow | | Hyperplasia, Nos |
| Heart | Myocardium Nos | Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pancreas | Acinus | Atrophy, Nos |
| Pituitary gland | Anterior Pituitary | Angiectasis |
| | Intermedia | Angiectasis |
| | Anterior Pituitary | Hyperplasia, Focal |
| Stomach | Glandular Stomach | Cyst, Multiple |
| Thyroid | | C-Cell Adenoma |
| Unspecified | Multiple Organs Nos | Leukemia, Mononuclear Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55652

Test Type: Long-Term

Route: Dosed-Feed

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: Ephedrine sulfate

CAS Number: 134-72-5

Date Report Requested: 10/26/2014

Time Report Requested: 13:34:06

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_150

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Heart

Cortex Nos

Hyperplasia, Focal

Kidney

Myocardium Nos

Fibrosis

Liver

Nephropathy

Mammary gland

Cytoplasmic Change, Basophilic

Pituitary gland

Hyperplasia, Cystic

Stomach

Anterior Pituitary

Angiectasis

Unspecified

Glandular Stomach

Cyst, Multiple

Multiple Organs Nos

Leukemia, Mononuclear Cell

Adipose Tissue

Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

**** END OF REPORT ****