

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

C Number: C54604

Cage Range: All

Date Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: All

Study Gender: Female

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_001

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Liver

Myocardium Nos

Bile Duct

Bile Duct

Metamorphosis, Fatty

Degeneration, Nos

Nephropathy

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Inflammation, Nos

Neoplastic Nodule

Adenoma, Nos

Hematopoiesis

Follicular-Cell Adenoma

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_002

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-------------|-----------|--------------------------|
| Liver | Bile Duct | Hyperplasia, Nos |
| Lung | | Fibrosarcoma, Metastatic |
| Lymph node | | Angiectasis |
| | | Depletion, Lymphoid |
| Ovary | | Cyst, Nos |
| Spleen | | Depletion, Lymphoid |
| | | Hematopoiesis |
| Unspecified | | Fibrosarcoma |
| | | Necrosis, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_003

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------|--------------------------------|
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Sarcoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_004

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| Liver | Bile Duct | Nephropathy |
| | | Cytoplasmic Change, Basophilic |
| Lung | | Hyperplasia, Nos |
| Pancreas | | Inflammation, Nos |
| Pituitary gland | | Degeneration, Cystic |
| Spleen | | Adenoma, Nos |
| | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_005

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Bile Duct

Inflammation, Nos

Pituitary gland

Adenoma, Nos

Dilatation, Nos

Spleen

Hematopoiesis

Thyroid

C-Cell Adenoma

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_006

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_007

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Necrosis, Focal |
| | | Neoplastic Nodule |
| Lung | | Inflammation, Granulomatous |
| | | Inflammation, Nos |
| Pancreas | Acinus | Atrophy, Focal |
| Pituitary gland | | Adenoma, Nos |
| | | Dilatation, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Follicular-Cell Carcinoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_008

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland

Clitoral gland

Heart

Kidney

Liver

Ovary

Myocardium Nos

Bile Duct

Ganglioneuroma

Adenoma, Nos

Degeneration, Nos

Mineralization

Nephropathy

Focal Cellular Change

Hyperplasia, Nos

Metamorphosis, Fatty

Neoplastic Nodule

Granulosa-Cell Tumor

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_009

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Nephropathy

Liver

Focal Cellular Change

Lymph node

Metamorphosis, Fatty

Pituitary gland

Hyperplasia, Lymphoid

Spleen

Hyperplasia, Nos

Thyroid

Hematopoiesis

Uterus

Hyperplasia, C Cell

Endometrium

Endometrial Stromal Polyp

Hyperplasia, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_010

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Intestine Small
Kidney

Peyers Patch
Papilla

Hyperplasia, Nos
Mineralization
Nephropathy
Cytoplasmic Change, Basophilic

Liver

Bile Duct

Hyperplasia, Nos
Neoplastic Nodule

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Thyroid

Cyst, Follicular Nos

Follicular-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_011

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hypertrophy, Focal

Liver

Cytoplasmic Change, Basophilic

Mammary gland

Fibroadenoma

Pituitary gland

Hyperplasia, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_012

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Intestine Small

Kidney

Liver

Pituitary gland

Spleen

Stomach

Thyroid

Myocardium Nos

Peyers Patch

Bile Duct

Omentum Nos

Cortical Adenoma

Degeneration, Nos

Hyperplasia, Nos

Mineralization

Nephropathy

Cytoplasmic Change, Basophilic

Inflammation, Nos

Adenoma, Nos

Hematopoiesis

Hyperplasia, Epithelial

Necrosis, Fat

Follicular-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_013

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Hemorrhage

Heart

Myocardium Nos

Metamorphosis, Fatty

Kidney

Degeneration, Nos

Liver

Nephropathy

Lung

Bile Duct

Cytoplasmic Change, Basophilic

Mammary gland

Hyperplasia, Nos

Pituitary gland

Inflammation, Nos

Spleen

Galactocele

Stomach

Adenoma, Nos

Hematopoiesis

Acanthosis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_014

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Papilla

Mineralization

Liver

Bile Duct

Nephropathy

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Pituitary gland

Necrosis, Focal

Adenoma, Nos

Spleen

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_015

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | | Necrosis, Focal |
| Lung | | Inflammation, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_016

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|--------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_017

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|------------------------|---|
| Adrenal gland | | Cortical Adenoma |
| Heart | Myocardium Nos | Degeneration, Nos Fibrosis |
| Kidney | | Mineralization Nephropathy |
| Liver | Bile Duct Bile Duct | Cytoplasmic Change, Basophilic Hyperplasia, Nos Inflammation, Nos |
| Lung | | Hyperplasia, Alveolar Epithelium Inflammation, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Follicular-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_018

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Kidney

Nephropathy

Liver

Metamorphosis, Fatty

Mammary gland

Fibroadenoma

Galactocele

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Thyroid

Hyperplasia, Follicular Cell

Unspecified

Multiple Organs Nos

Leukemia, Myelomonocytic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_019

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland

Adenoma, Nos

Heart

Myocardium Nos

Necrosis, Nos

Kidney

Degeneration, Nos

Liver

Nephropathy

Focal Cellular Change

Bile Duct

Hyperplasia, Nos

Bile Duct

Inflammation, Nos

Mammary gland

Fibroadenoma

Spleen

Hematopoiesis

Thyroid

Follicular-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_020

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|----------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| Pancreas | Acinus | Atrophy, Focal |
| Spleen | | Hematopoiesis |
| Thyroid | | C-Cell Carcinoma |
| Uterus | | Endometrial Stromal Polyp |
| | | Necrosis, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_021

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|-----------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | Papilla | Mineralization |
| | | Nephropathy |
| Liver | | Focal Cellular Change |
| | Bile Duct | Hyperplasia, Nos |
| | | Metamorphosis, Fatty |
| Lung | | Inflammation, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | C-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_022

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Liver

Pituitary gland

Spleen

Stomach

Thyroid

Uterus

Myocardium Nos

Metamorphosis, Fatty

Degeneration, Nos

Nephropathy

Cytoplasmic Change, Basophilic

Adenoma, Nos

Hematopoiesis

Hyperkeratosis

Hyperplasia, C Cell

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_023

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Bile Duct

Inflammation, Nos

Lung

Inflammation, Nos

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Stomach

Hyperplasia, Epithelial

Thyroid

Hyperplasia, Follicular Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_024

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|----------------------------------|
| Adrenal gland | | Pheochromocytoma |
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| | | Neoplastic Nodule |
| Lung | | Hyperplasia, Alveolar Epithelium |
| | | Inflammation, Nos |
| Pancreas | Acinus | Atrophy, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Cyst, Follicular Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_025

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Intestine Small
Kidney

Peyers Patch
Papilla

Hyperplasia, Nos
Mineralization
Nephropathy
Cytoplasmic Change, Basophilic

Liver

Bile Duct

Hyperplasia, Nos
Metamorphosis, Fatty
Inflammation, Nos

Lung

Mammary gland

Fibroadenoma
Galactocele

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Thyroid

Cyst, Follicular Nos

Follicular-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_026

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| Lung | | Inflammation, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_027

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Clitoral gland | | Adenoma, Nos |
| | | Necrosis, Nos |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lymph node | | Hyperplasia, Lymphoid |
| Pituitary gland | | Adenoma, Nos |
| Skin | Nose | Hyperkeratosis |
| | Nose | Necrosis, Nos |
| | Nose | Squamous Cell Papilloma |
| Spleen | | Hematopoiesis |
| Thyroid | | C-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_028

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| Lymph node | | Hyperplasia, Lymphoid |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_029

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|---------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Follicular-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_030

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Nephropathy

Lymph node

Cytoplasmic Change, Basophilic

Mammary gland

Hyperplasia, Lymphoid

Pituitary gland

Fibroadenoma

Spleen

Adenoma, Nos

Thyroid

Hematopoiesis

C-Cell Adenoma

Hyperplasia, Follicular Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_031

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland

Adenoma, Nos

Heart

Myocardium Nos

Necrosis, Nos

Kidney

Degeneration, Nos

Liver

Nephropathy

Mammary gland

Focal Cellular Change

Fibroadenoma

Fibrosis

Inflammation, Nos

Pancreas

Acinus

Atrophy, Focal

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Stomach

Hyperkeratosis

Hyperplasia, Epithelial

Thyroid

Cyst, Follicular Nos

Hyperplasia, Follicular Cell

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_032

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | Papilla | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Follicular-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604
Test Type: Long-Term
Route: Dosed-Water
Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014
Time Report Requested: 15:18:09
First Dose M/F: NA / NA
Lab: NA

ANIMAL ID: 1_033

TRT#: 1
DOSE: 300 PPM

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hypertrophy, Focal |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Inflammation, Nos |
| | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | | Metamorphosis, Fatty |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | C-Cell Adenoma |
| Uterus | | Endometrial Stromal Polyp |
| | | Inflammation, Nos |

PRIMARY CAUSE OF DEATH

-

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_034

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | | Adenoma, Nos |
| | | Dilatation, Nos |
| Thyroid | | Follicular-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_035

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Medulla

Hyperplasia, Nos

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Nephropathy

Liver

Focal Cellular Change

Inflammation, Nos

Lung

Inflammation, Nos

Lymph node

Hyperplasia, Lymphoid

Plasmacytosis

Mammary gland

Adenoma, Nos

Fibroadenoma

Galactocele

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Thyroid

Hyperplasia, Follicular Cell

Unspecified

Sarcoma, Nos

Urinary bladder

Transitional-Cell Papilloma

Uterus

Adenocarcinoma, Nos

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_036

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Necrosis, Focal |
| Lung | | Inflammation, Nos |
| Ovary | | Granulosa-Cell Tumor |
| Pituitary gland | | Adenoma, Nos |
| Skin | | Hyperkeratosis |
| | | Squamous Cell Papilloma |
| Spleen | | Hematopoiesis |
| Unspecified | | Inflammation, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_037

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Intestine Small

Kidney

Liver

Lymph node

Pituitary gland

Spleen

Thyroid

Myocardium Nos

Peyers Patch

Papilla

Bile Duct

Bile Duct

Metamorphosis, Fatty

Degeneration, Nos

Hyperplasia, Nos

Mineralization

Nephropathy

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Inflammation, Nos

Hyperplasia, Lymphoid

Adenoma, Nos

Hematopoiesis

Follicular-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_038

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Kidney

Liver

Pituitary gland

Thyroid

Unspecified

Multiple Organs Nos

Metamorphosis, Fatty

Nephropathy

Metamorphosis, Fatty

Adenoma, Nos

Follicular-Cell Adenoma

Leukemia, Myelomonocytic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_039

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | | Metamorphosis, Fatty |
| Mammary gland | | Fibroadenoma |
| | | Galactocele |
| Pituitary gland | | Carcinoma, Nos |
| Spleen | | Hematopoiesis |
| Stomach | | Acanthosis |
| | | Inflammation, Nos |
| Thyroid | | Follicular-Cell Adenoma |
| | | Hyperplasia, Follicular Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_040

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Intestine Small
Kidney

Peyers Patch
Papilla

Hyperplasia, Nos
Mineralization
Nephropathy
Cytoplasmic Change, Basophilic
Galactocele
Adenoma, Nos
Hematopoiesis
Follicular-Cell Adenoma

Liver
Mammary gland
Pituitary gland
Spleen
Thyroid

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_041

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|------------|----------------|--|
| Heart | Myocardium Nos | Degeneration, Nos Fibrosis |
| Kidney | Papilla | Mineralization Mineralization Nephropathy |
| Liver | Bile Duct | Cytoplasmic Change, Basophilic Hyperplasia, Nos Necrosis, Focal Neoplastic Nodule |
| Lung | | Inflammation, Nos |
| Lymph node | | Hyperplasia, Lymphoid |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_042

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------|--|
| Clitoral gland | | Adenoma, Nos Necrosis, Nos |
| Heart | | Embolism, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | Papilla | Mineralization Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| Lung | | Alveolar/Bronchiolar Carcinoma Mineralization |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Depletion, Lymphoid Hematopoiesis |
| Thyroid | | Cyst, Follicular Nos Hyperplasia, Follicular Cell |
| Uterus | | Hydrometra |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_043

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | | Neoplastic Nodule |
| Lung | | Inflammation, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Stomach | | Hyperkeratosis |
| Thyroid | | Follicular-Cell Carcinoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_044

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Brain

Heart

Kidney

Liver

Lung

Pituitary gland

Spleen

Thyroid

Myocardium Nos

Bile Duct

Metamorphosis, Fatty

Astrocytoma

Degeneration, Nos

Nephropathy

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Inflammation, Nos

Adenoma, Nos

Hematopoiesis

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_045

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-------------|----------------|--------------------------------|
| Brain | | Astrocytoma |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | Papilla | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| Lymph node | | Hyperplasia, Lymphoid |
| Spleen | | Hematopoiesis |
| Thyroid | | Follicular-Cell Adenoma |
| Unspecified | Eyelid | Sarcoma, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_046

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Fibrosis |
| | | Inflammation, Nos |
| | | Metamorphosis, Fatty |
| | | Necrosis, Focal |
| Lung | | Inflammation, Nos |
| Mammary gland | | Fibroadenoma |
| | | Galactocele |
| Pituitary gland | | Carcinoma, Nos |
| Thyroid | | Cyst, Follicular Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_047

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|-------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Focal Cellular Change |
| | Bile Duct | Hyperplasia, Nos |
| Lung | | Inflammation, Nos |
| | | Mineralization |
| Spleen | | Depletion, Lymphoid |
| | | Hematopoiesis |
| Thyroid | | C-Cell Adenoma |
| | | Cyst, Follicular Nos |
| | | Follicular-Cell Adenoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_048

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | Papilla | Mineralization |
| | | Nephropathy |
| Liver | | Focal Cellular Change |
| | Bile Duct | Hyperplasia, Nos |
| Lung | | Inflammation, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Depletion, Lymphoid |
| | | Hematopoiesis |
| Thyroid | | Follicular-Cell Adenoma |
| | | Hyperplasia, Follicular Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_049

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------|--|
| Adrenal gland | Cortex Nos | Hypertrophy, Focal Metamorphosis, Fatty |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Mineralization Nephropathy |
| Liver | | Dilatation, Nos Focal Cellular Change |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos Metamorphosis, Fatty Neoplastic Nodule |
| Pituitary gland | | Carcinoma, Nos |
| Spleen | | Hematopoiesis |
| Stomach | | Acanthosis |
| Thyroid | | Follicular-Cell Adenoma Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_050

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 300 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|---------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Focal Cellular Change |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| | | Metamorphosis, Fatty |
| Pancreas | Acinus | Atrophy, Focal |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Depletion, Lymphoid |
| | | Hematopoiesis |
| Thymus | | Thymoma, Benign |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_001

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Metamorphosis, Fatty |
| Pituitary gland | | Adenoma, Nos |
| Unspecified | Multiple Organs Nos | Leukemia, Myelomonocytic |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_002

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Myocardium Nos

Dilatation, Nos

Degeneration, Nos

Infarct, Nos

Mineralization

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Bile Duct

Inflammation, Nos

Mammary gland

Fibroadenoma

Pituitary gland

Dilatation, Nos

Spleen

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_003

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Clitoral gland

Liver

Pancreas

Pituitary gland

Spleen

Unspecified

Uterus

Acinus

Multiple Organs Nos

Metamorphosis, Fatty

Adenoma, Nos

Cytoplasmic Change, Basophilic

Atrophy, Focal

Dilatation, Nos

Hyperplasia, Nos

Hematopoiesis

Leukemia, Myelomonocytic

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_004

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Liver

Mammary gland

Urinary bladder

Pheochromocytoma

Cytoplasmic Change, Basophilic

Fibroadenoma

Transitional-Cell Papilloma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_005

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|---------------|----------------|---------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Metamorphosis, Fatty |
| Lung | | Adenocarcinoma, Nos, Metastatic |
| | | Bronchopneumonia, Nos |
| Mammary gland | | Adenocarcinoma, Nos |
| | | Necrosis, Nos |
| Spleen | | Depletion, Lymphoid |
| | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |
| | Endometrium | Hydrometra |
| | | Hyperplasia, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_006

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------------|--|
| Adrenal gland | Cortex Nos Medulla | Hyperplasia, Focal Hyperplasia, Nos Metamorphosis, Fatty |
| Intestine Large | Colon | Parasitism |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Inflammation, Nos |
| Lung | | Inflammation, Nos |
| Lymph node | | Hyperplasia, Lymphoid |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_007

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | |
|-----------------|--------------------------------|
| Brain | Astrocytoma |
| | Hydrocephalus, Nos |
| Kidney | Nephropathy |
| Liver | Cytoplasmic Change, Basophilic |
| | Metamorphosis, Fatty |
| Pituitary gland | Adenoma, Nos |
| Spleen | Hematopoiesis |
| Stomach | Hyperkeratosis |
| | Hyperplasia, Epithelial |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_008

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|----------------|------------|--------------------------------|
| Adrenal gland | Medulla | Hyperplasia, Nos |
| | Cortex Nos | Hypertrophy, Focal |
| | | Metamorphosis, Fatty |
| Clitoral gland | | Adenoma, Nos |
| | | Necrosis, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| Lung | | Inflammation, Nos |
| Pancreas | Acinus | Atrophy, Focal |
| Spleen | | Hematopoiesis |
| Uterus | | Inflammation, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_009

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|---------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Focal Cellular Change |
| | Bile Duct | Hyperplasia, Nos |
| Mammary gland | | Fibroadenoma |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |
| | | Inflammation, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_010

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--|
| Adrenal gland | Cortex Nos | Hypertrophy, Focal Metamorphosis, Fatty |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| | | Metamorphosis, Fatty |
| Lung | | Inflammation, Nos |
| Ovary | | Granulosa-Cell Tumor |
| Pituitary gland | | Dilatation, Nos |
| Spleen | | Hematopoiesis |
| Stomach | Omentum Nos | Necrosis, Fat |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_011

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-------------|---------------------|--------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| Liver | | Focal Cellular Change |
| | | Metamorphosis, Fatty |
| Thyroid | | Follicular-Cell Adenoma |
| Unspecified | Multiple Organs Nos | Leukemia, Myelomonocytic |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_012

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Kidney

Medulla

Hyperplasia, Nos
Mineralization
Nephropathy
Cytoplasmic Change, Basophilic
Hematopoiesis
Endometrial Stromal Polyp

Liver
Spleen
Uterus

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_013

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Liver

Uterus

Myocardium Nos

Metamorphosis, Fatty

Degeneration, Nos

Cytoplasmic Change, Basophilic

Sarcoma, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_014

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|------------|----------------|-----------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Lung | | Fibrosis, Diffuse |
| Lymph node | | Hyperplasia, Lymphoid |
| Spleen | | Hematopoiesis |
| Uterus | | Hydrometra |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_015

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Dilatation, Nos

Heart

Myocardium Nos

Hypertrophy, Focal

Intestine Small

Peyers Patch

Degeneration, Nos

Kidney

Hyperplasia, Nos

Mineralization

Liver

Nephropathy

Mammary gland

Focal Cellular Change

Fibroadenoma

Pituitary gland

Galactocele

Adenoma, Nos

Spleen

Hematopoiesis

Thyroid

Hyperplasia, C Cell

Hyperplasia, Follicular Cell

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_016

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Kidney

Liver

Pituitary gland

Spleen

Thyroid

Urinary bladder

Uterus

Bile Duct

Bile Duct

Dilatation, Nos

Nephropathy

Focal Cellular Change

Hyperplasia, Nos

Inflammation, Nos

Carcinoma, Nos

Hematopoiesis

Hyperplasia, C Cell

Transitional-Cell Papilloma

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_017

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Dilatation, Nos

Heart

Myocardium Nos

Hyperplasia, Nos

Kidney

Degeneration, Nos

Liver

Nephropathy

Bile Duct

Focal Cellular Change

Spleen

Hyperplasia, Nos

Stomach

Hematopoiesis

Thyroid

Acanthosis

Uterus

Hyperplasia, C Cell

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_018

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|-----------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | Papilla | Mineralization |
| | | Nephropathy |
| Liver | | Focal Cellular Change |
| Lung | | Inflammation, Nos |
| Lymph node | | Hyperplasia, Lymphoid |
| Mammary gland | | Fibroadenoma |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_019

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Dilatation, Nos

Inflammation, Nos

Neoplastic Nodule

Lung

C-Cell Carcinoma, Metastatic

Mammary gland

Adenocarcinoma, Nos

Fibroadenoma

Galactocele

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Thyroid

C-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_020

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland

Liver

Mammary gland

Pituitary gland

Spleen

Adenoma, Nos

Cytoplasmic Change, Basophilic

Fibroadenoma

Galactocele

Adenoma, Nos

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_021

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hypertrophy, Focal

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Nephropathy

Liver

Focal Cellular Change

Bile Duct

Hyperplasia, Nos

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Thyroid

C-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_022

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Nephropathy

Mammary gland

Cytoplasmic Change, Basophilic

Pancreas

Acinus

Metamorphosis, Fatty

Spleen

Galactocele

Thyroid

Atrophy, Focal

Uterus

Endometrium

Hematopoiesis

Cyst, Follicular Nos

Hyperplasia, Focal

Inflammation, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_023

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Intestine Large
Intestine Small
Kidney
Liver

Lymph node
Pituitary gland
Spleen
Thyroid
Uterus

Cortex Nos
Colon
Peyers Patch

Hypertrophy, Focal
Parasitism
Hyperplasia, Nos
Nephropathy
Focal Cellular Change
Metamorphosis, Fatty
Hyperplasia, Lymphoid
Adenoma, Nos
Hematopoiesis
C-Cell Adenoma
Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_024

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hypertrophy, Focal
Metamorphosis, Fatty
Pheochromocytoma

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Mineralization

Liver

Nephropathy

Lung

Cytoplasmic Change, Basophilic

Lymph node

Hyperplasia, Epithelial

Spleen

Hematopoiesis

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_025

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|---------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Large | Colon | Parasitism |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Focal Cellular Change |
| | | Metamorphosis, Fatty |
| | | Neoplastic Nodule |
| Mammary gland | | Adenocarcinoma, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Depletion, Lymphoid |
| | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_026

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Liver

Lung

Mammary gland

Spleen

Stomach

Thyroid

Myocardium Nos

Dilatation, Nos

Degeneration, Nos

Nephropathy

Cytoplasmic Change, Basophilic

Inflammation, Nos

Adenocarcinoma, Nos

Hematopoiesis

Hyperplasia, Epithelial

C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_027

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-----------------|-----------------|--------------------------------|
| Heart | Endocardium Nos | Inflammation, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Metamorphosis, Fatty |
| Pituitary gland | | Adenoma, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_028

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Intestine Small

Medulla
Jejunum
Peyers Patch
Jejunum

Hyperplasia, Nos
Fibrosis
Hyperplasia, Nos
Inflammation, Acute
Mineralization
Nephropathy
Cytoplasmic Change, Basophilic
Adenoma, Nos
Hematopoiesis
Hydrometra
Inflammation, Nos

Kidney

Liver
Pituitary gland

Spleen
Uterus

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_029

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hypertrophy, Focal

Metamorphosis, Fatty

Heart

Myocardium Nos

Degeneration, Nos

Intestine Small

Peyers Patch

Hyperplasia, Nos

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Thyroid

C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_030

TRT#: 2

DOSE: 150 PPM

SEX: Female

DISP: Scheduled Sacrifice

DAY ON TEST:

HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Nephropathy

Pituitary gland

Cytoplasmic Change, Basophilic

Spleen

Adenoma, Nos

Dilatation, Nos

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_031

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Nephropathy

Lung

Cytoplasmic Change, Basophilic

Pituitary gland

Hemorrhage

Spleen

Adenoma, Nos

Thyroid

Dilatation, Nos

Urinary bladder

Hematopoiesis

Cyst, Follicular Nos

Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_032

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|---------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | Papilla | Inflammation, Nos |
| | | Mineralization |
| | | Nephropathy |
| | | Nephrosis, Hydro |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Metamorphosis, Fatty |
| | | Neoplastic Nodule |
| Lung | | Adenocarcinoma, Nos, Metastatic |
| Ovary | | Granulosa-Cell Tumor |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Follicular-Cell Adenoma |
| Uterus | | Adenocarcinoma, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_033

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|--------|----------------|--|
| Heart | Myocardium Nos | Degeneration, Nos Fibrosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | Bronchus | Inflammation, Nos Inflammation, Nos |
| Ovary | | Granulosa-Cell Tumor |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_034

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hypertrophy, Focal

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Lung

Necrosis, Focal

Mammary gland

Inflammation, Nos

Fibroadenoma

Unspecified

Multiple Organs Nos

Galactocele

Leukemia, Myelomonocytic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_035

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Perivasculitis |
| Mammary gland | | Fibroadenoma |
| Pituitary gland | | Adenoma, Nos |
| Thyroid | | Hyperplasia, Follicular Cell |
| Unspecified | Multiple Organs Nos | Leukemia, Myelomonocytic |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_036

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hypertrophy, Focal

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Nephropathy

Liver

Focal Cellular Change

Metamorphosis, Fatty

Lung

Inflammation, Nos

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

Stomach

Hyperkeratosis

Uterus

Endometrium

Hyperplasia, Nos

Inflammation, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_037

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Intestine Small
Kidney
Liver

Peyers Patch

Hyperplasia, Nos
Nephropathy
Cytoplasmic Change, Basophilic
Metamorphosis, Fatty
Neoplastic Nodule

Mammary gland

Galactocele
Hyperplasia, Nos

Pituitary gland

Adenoma, Nos

Stomach

Omentum Nos

Necrosis, Fat
Necrosis, Nos

Thyroid

Follicular-Cell Carcinoma
Hyperplasia, Follicular Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_038

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Liver

Lung

Spleen

Stomach

Thyroid

Myocardium Nos

Bile Duct

Dilatation, Nos

Degeneration, Nos

Fibrosis

Mineralization

Nephropathy

Focal Cellular Change

Hyperplasia, Nos

Inflammation, Nos

Hematopoiesis

Hyperplasia, Epithelial

Follicular-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_039

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hypertrophy, Focal
Metamorphosis, Fatty

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Nephropathy

Liver

Bile Duct

Focal Cellular Change

Mammary gland

Hyperplasia, Nos
Metamorphosis, Fatty

Pituitary gland

Fibroadenoma

Spleen

Adenoma, Nos

Thyroid

Hematopoiesis

Uterus

Cyst, Follicular Nos

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_040

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|--------------|----------------------|
| Brain | | Hydrocephalus, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Metamorphosis, Fatty |
| | | Neoplastic Nodule |
| Mammary gland | | Galactocele |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Depletion, Lymphoid |
| | | Hematopoiesis |
| Stomach | | Acanthosis |
| | | Hyperkeratosis |
| | | Inflammation, Nos |
| | | Necrosis, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_041

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Pancreas

Islets

Islet-Cell Adenoma

Spleen

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_042

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Eye

Cataract

Heart

Retina

Degeneration, Nos

Kidney

Myocardium Nos

Degeneration, Nos

Liver

Nephropathy

Mammary gland

Focal Cellular Change

Uterus

Fibroadenoma

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_043

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland

Heart

Kidney

Liver

Mammary gland

Pituitary gland

Spleen

Myocardium Nos

Adenoma, Nos

Degeneration, Nos

Nephropathy

Focal Cellular Change

Metamorphosis, Fatty

Fibroadenoma

Galactocele

Adenoma, Nos

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_044

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|---------------|---------------------|------------------------------------|
| Adrenal gland | Medulla | Hyperplasia, Nos |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| | | Metamorphosis, Fatty |
| Ovary | | Granulosa-Cell Carcinoma |
| Spleen | | Granulosa-Cell Carcinoma, Invasive |
| Stomach | | Hyperkeratosis |
| Unspecified | Multiple Organs Nos | Leukemia, Myelomonocytic |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_045

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-----------|-----------|--------------------------------|
| Brain | | Astrocytoma |
| Esophagus | | Hyperkeratosis |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | | Metamorphosis, Fatty |
| Spleen | | Depletion, Lymphoid |
| | | Hematopoiesis |
| Stomach | | Hyperkeratosis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_046

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Nephropathy

Focal Cellular Change

Inflammation, Nos

Metamorphosis, Fatty

Neoplastic Nodule

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_047

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Heart
Kidney

Cortex Nos
Myocardium Nos

Hypertrophy, Focal
Degeneration, Nos
Mineralization
Nephropathy
Focal Cellular Change
Adenoma, Nos
Depletion, Lymphoid
Hematopoiesis
Hyperplasia, Basal Cell

Liver
Pituitary gland
Spleen

Stomach

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_048

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Metamorphosis, Fatty |
| | | Neoplastic Nodule |
| Mammary gland | | Fibroadenoma |
| Pituitary gland | | Carcinoma, Nos |
| Spleen | | Depletion, Lymphoid |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_049

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Dilatation, Nos

Heart

Myocardium Nos

Hypertrophy, Focal

Kidney

Degeneration, Nos

Liver

Nephropathy

Lung

Bile Duct

Cytoplasmic Change, Basophilic

Mammary gland

Hyperplasia, Nos

Spleen

Inflammation, Nos

Fibroadenoma

Unspecified

Multiple Organs Nos

Depletion, Lymphoid

Hematopoiesis

Leukemia, Myelomonocytic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_050

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 150 PPM

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Medulla

Hyperplasia, Nos

Heart

Cortex Nos

Hypertrophy, Focal

Kidney

Myocardium Nos

Degeneration, Nos

Liver

Mineralization

Nephropathy

Bile Duct

Focal Cellular Change

Hyperplasia, Nos

Metamorphosis, Fatty

Pituitary gland

Neoplastic Nodule

Adenoma, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_001

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | Bronchus | Inflammation, Focal |
| Mammary gland | | Adenocarcinoma, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_002

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Liver

Pancreas

Spleen

Thyroid

Myocardium Nos

Acinus

Metamorphosis, Fatty

Degeneration, Nos

Mineralization

Nephropathy

Cytoplasmic Change, Basophilic

Metamorphosis, Fatty

Atrophy, Focal

Hematopoiesis

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_003

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Cytoplasmic Change, Basophilic

Unspecified

Abdominal Cavity

Sarcoma, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_004

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|---------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Focal Cellular Change |
| | Bile Duct | Hyperplasia, Nos |
| | | Metamorphosis, Fatty |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_005

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Nephropathy

Focal Cellular Change

Spleen

Bile Duct

Hyperplasia, Nos

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_006

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Unspecified | | Fibroma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_007

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

Kidney

Mineralization

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Spleen

Bile Duct

Hyperplasia, Nos

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_008

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_009

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Liver

Pituitary gland

Spleen

Stomach

Myocardium Nos

Omentum Nos

Pheochromocytoma

Degeneration, Nos

Mineralization

Nephropathy

Cytoplasmic Change, Basophilic

Metamorphosis, Fatty

Neoplastic Nodule

Adenoma, Nos

Hematopoiesis

Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_010

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|--------|----------------|-----------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Focal Cellular Change |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_011

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|----------------------|
| Brain | | Astrocytoma |
| Heart | Myocardium Nos | Degeneration, Nos |
| Liver | | Metamorphosis, Fatty |
| Pituitary gland | | Adenoma, Nos |
| Stomach | Omentum Nos | Necrosis, Fat |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_012

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Medulla

Hyperplasia, Nos

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Mineralization

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Lung

Inflammation, Nos

Mammary gland

Adenocarcinoma, Nos

Fibroadenoma

Galactocele

Pituitary gland

Adenoma, Nos

Spleen

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_013

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland

Heart

Intestine Small

Kidney

Liver

Lung

Pituitary gland

Spleen

Myocardium Nos

Peyers Patch

Adenoma, Nos

Degeneration, Nos

Hyperplasia, Nos

Mineralization

Nephropathy

Cytoplasmic Change, Basophilic

Inflammation, Nos

Adenoma, Nos

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_014

TRT#: 3
DOSE: 0

SEX: Female
DISP: Natural Death

DAY ON TEST:
HISTO:

OBSERVATIONS

Adrenal gland
Stomach
Unspecified

Cortex Nos
Multiple Organs Nos

Hypertrophy, Focal
Necrosis, Nos
Leukemia, Myelomonocytic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_015

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-------------------|---------------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Dilatation, Nos |
| Lung | | Inflammation, Focal |
| | | Inflammation, Nos |
| Parathyroid gland | | Hyperplasia, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Stomach | | Hyperkeratosis |
| | | Hyperplasia, Basal Cell |
| Unspecified | Multiple Organs Nos | Mineralization |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_016

TRT#: 3
DOSE: 0

SEX: Female
DISP: Natural Death

DAY ON TEST:
HISTO:

OBSERVATIONS

Heart
Kidney
Liver
Mammary gland

Myocardium Nos

Degeneration, Nos
Nephropathy
Metamorphosis, Fatty
Galactocele
Hyperplasia, Nos
Leukemia, Myelomonocytic

Unspecified

Multiple Organs Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_017

TRT#: 3

DOSE: 0

SEX: Female

DISP: Natural Death

DAY ON TEST:

HISTO:

OBSERVATIONS

| | | |
|---------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Necrosis, Ischemic |
| Lung | | Inflammation, Nos |
| Mammary gland | | Galactoceles |
| Spleen | | Depletion, Lymphoid |
| | | Hematopoiesis |
| Unspecified | | Fibrosarcoma |
| | | Necrosis, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_018

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|---------------------|--------------------------------|
| Adrenal gland | Cortex Nos | Hyperplasia, Focal |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Mammary gland | | Adenocarcinoma, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Unspecified | Multiple Organs Nos | Leukemia, Myelomonocytic |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_019

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Intestine Small | Peyers Patch | Hyperplasia, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Hyperplasia, Follicular Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_020

TRT#: 3

DOSE: 0

SEX: Female

DISP: Natural Death

DAY ON TEST:

HISTO:

OBSERVATIONS

Kidney

Liver

Pituitary gland

Uterus

Nephropathy

Cytoplasmic Change, Basophilic

Adenoma, Nos

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_021

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Inflammation, Nos |
| Mammary gland | | Fibroadenoma |
| Pituitary gland | | Adenoma, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_022

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_023

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|---------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Mammary gland | | Fibroadenoma |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_024

TRT#: 3

DOSE: 0

SEX: Female

DISP: Natural Death

DAY ON TEST:

HISTO:

OBSERVATIONS

Kidney
Liver
Spleen
Stomach

Uterus

Mineralization
Cytoplasmic Change, Basophilic
Hematopoiesis
Hyperkeratosis
Hyperplasia, Epithelial
Endometrial Stromal Polyp
Endometrial Stromal Sarcoma
Necrosis, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_025

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Alveolar/Bronchiolar Adenoma |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_026

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization Nephropathy |
| Liver | Bile Duct | Cytoplasmic Change, Basophilic Hyperplasia, Nos |
| Mammary gland | | Fibroadenoma Galactocele |
| Pancreas | Acinus | Atrophy, Focal |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Uterus | | Papillary Adenocarcinoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_027

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|----------------|----------------|--------------------------------|
| Clitoral gland | | Carcinoma, Nos |
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Spleen | | Hematopoiesis |
| Thyroid | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_028

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_029

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hypertrophy, Focal

Clitoral gland

Adenoma, Nos

Heart

Myocardium Nos

Degeneration, Nos

Kidney

Mineralization

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Mammary gland

Fibroadenoma

Spleen

Hematopoiesis

Uterus

Endometrial Stromal Sarcoma

Hyperplasia, Adenomatous

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_030

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|---------------|---------------------|--------------------------------|
| Lung | | Basal-Cell Carcinoma, Invasive |
| Mammary gland | | Adenocarcinoma, Nos |
| Skin | | Basal-Cell Carcinoma |
| Unspecified | Multiple Organs Nos | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_031

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_032

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Metamorphosis, Fatty |
| Lung | | Hyperplasia, Epithelial |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Sarcoma |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_033

TRT#: 3

DOSE: 0

SEX: Female

DISP: Scheduled Sacrifice

DAY ON TEST:

HISTO:

OBSERVATIONS

Kidney

Liver

Nephropathy

Cytoplasmic Change, Basophilic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_034

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|-----------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Focal Cellular Change |
| | Bile Duct | Hyperplasia, Nos |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_035

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|---------------|----------------|--|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization Nephropathy |
| Liver | | Focal Cellular Change Neoplastic Nodule |
| Mammary gland | | Fibroadenoma |
| Pancreas | Acinus | Atrophy, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_036

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

Kidney

Liver

Pituitary gland

Spleen

Bile Duct

Nephropathy

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Adenoma, Nos

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_037

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH -

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_038

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Inflammation, Nos |
| Mammary gland | | Fibroadenoma |
| | | Galactocele |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Stomach | | Hyperplasia, Epithelial |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_039

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Kidney

Liver

Pituitary gland

Spleen

Myocardium Nos

Cortical Adenoma

Degeneration, Nos

Nephropathy

Cytoplasmic Change, Basophilic

Adenoma, Nos

Hematopoiesis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_040

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Lung | | Sarcoma, Nos, Metastatic |
| Pituitary gland | | Adenoma, Nos |
| Skin | | Hyperplasia, Epithelial |
| | | Inflammation, Necrotizing |
| | | Inflammation, Nos |
| | Ear | Sarcoma, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_041

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|--------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_042

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | Papilla | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Thyroid | | Hyperplasia, C Cell |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_043

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|--------|----------------|--|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization Nephropathy |
| Liver | Bile Duct | Cytoplasmic Change, Basophilic Hyperplasia, Nos |
| Lung | | Inflammation, Nos |
| Spleen | Endometrium | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |
| | | Hyperplasia, Nos Inflammation, Nos Pyometra |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_044

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | | Metamorphosis, Fatty |
| | | Neoplastic Nodule |
| Mammary gland | | Fibroadenoma |
| | | Galactocele |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_045

TRT#: 3

DOSE: 0

SEX: Female

DISP: Scheduled Sacrifice

DAY ON TEST:

HISTO:

OBSERVATIONS

Kidney

Liver

Lung

Pituitary gland

Spleen

Stomach

Nephropathy

Cytoplasmic Change, Basophilic

Inflammation, Nos

Adenoma, Nos

Hematopoiesis

Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_046

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| Lung | | Bronchopneumonia, Nos |
| Pituitary gland | | Adenoma, Nos |
| Thyroid | | C-Cell Carcinoma |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_047

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Mammary gland | | Fibroadenoma |
| Pancreas | Acinus | Atrophy, Focal |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Stomach | | Hyperplasia, Epithelial |
| Uterus | | Endometrial Stromal Polyp |
| | Endometrium | Hyperplasia, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_048

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| Mammary gland | | Fibroadenoma |
| Pituitary gland | | Adenoma, Nos |
| Spleen | | Hematopoiesis |
| Stomach | | Hyperplasia, Epithelial |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 4,4'-Methylenedianiline dihydrochloride

CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_049

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

| | | |
|--------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Inflammation, Interstitial |
| | Papilla | Necrosis, Focal |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| | Bile Duct | Hyperplasia, Nos |
| | Bile Duct | Inflammation, Nos |
| | | Necrosis, Focal |
| | | Neoplastic Nodule |
| Spleen | | Hematopoiesis |
| Uterus | | Endometrial Stromal Polyp |
| | | Inflammation, Nos |

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C54604

Test Type: Long-Term

Route: Dosed-Water

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA
Test Compound: 4,4'-Methylenedianiline dihydrochloride
CAS Number: 13552-44-8

Date Report Requested: 10/26/2014

Time Report Requested: 15:18:09

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_050

TRT#: 3
DOSE: 0

SEX: Female
DISP: Scheduled Sacrifice

DAY ON TEST:
HISTO:

OBSERVATIONS

| | | |
|-----------------|----------------|--------------------------------|
| Heart | Myocardium Nos | Degeneration, Nos |
| Kidney | | Mineralization |
| | | Nephropathy |
| Liver | | Cytoplasmic Change, Basophilic |
| Pituitary gland | | Adenoma, Nos |
| Uterus | | Endometrial Stromal Polyp |

PRIMARY CAUSE OF DEATH -

**** END OF REPORT ****

* PROTOCOL REQUIRED TISSUE