

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

C Number: C55572

Cage Range: All

Date Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: All

Study Gender: Female

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C01

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Blood vessel
Eye

Pulmonary Artery Nos

Mineralization

Heart
Kidney
Liver

Retina

Cataract

Sclera

Degeneration, Nos

Myocardium Nos

Mineralization

Fibrosis

Nephropathy

Angiectasis

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Nos

Hyperplasia, Nos

Lung
Lymph node
Pituitary gland
Stomach

Bile Duct

Alveoli

Mandibular Lymph Node

Anterior Pituitary

Fundus

Histiocytosis

Degeneration, Cystic

Cyst, Nos

Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C02

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Eye	Retina	Degeneration, Nos
Larynx		Hemorrhage
Lung		Congestion, Nos
		Epithelialization
		Hemorrhage
		Perivascular Cuffing
Uterus		Inflammation, Suppurative

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C03

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Cataract
	Sclera	Degeneration, Nos
Heart	Myocardium Nos	Mineralization
Kidney	Papilla	Fibrosis
		Mineralization
Liver		Nephropathy
		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
		Galactocele
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C04

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Eye

Retina

Cataract

Kidney

Degeneration, Nos

Liver

Nephropathy

Fibrosis, Cholangio

Pituitary gland

Bile Duct

Hyperplasia, Nos

Unspecified

Anterior Pituitary

Adenoma, Nos

Multiple Organs Nos

Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C05

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Lung

Congestion, Nos

Unspecified

Abdominal Cavity

Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C06

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Liver	Bile Duct	Hyperplasia, Nos
Lung		Congestion, Nos
		Hemosiderosis
		Inflammation, Interstitial
Pituitary gland	Anterior Pituitary	Angiectasis
Vagina		Inflammation, Suppurative

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C07

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Liver	Centrilobular	Necrosis, Nos
Lung		Bronchiectasis
		Bronchopneumonia, Nos
		Hyperplasia, Lymphoid
		Perivascular Cuffing
Pituitary gland	Anterior Pituitary	Cyst, Nos
Trachea		Lymphocytic Inflammatory Infiltrate
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C08

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye		Cataract
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Salivary gland		Inflammation, Chronic
		Metaplasia, Squamous
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Cystic Follicles

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C09

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye		Cataract
	Retina	Degeneration, Nos
Kidney	Papilla	Mineralization
		Nephropathy
Liver		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C10

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Lipoidosis
Blood vessel	Pulmonary Artery Nos	Mineralization
Brain	Stem	Displacement, Nos
Eye		Cataract
	Retina	Degeneration, Nos
	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
		Nephrosis, Hydro
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
		Necrosis, Coagulative
Lung	Alveoli	Histiocytosis
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Ectopia
		Hyperplasia, Epithelial
Thyroid		Follicular-Cell Carcinoma
Ureter		Dilatation, Nos
Uterus		Endometrial Stromal Polyp
		Squamous Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C11

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Brain		Astrocytoma
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Nos
Lung	Alveoli	Histiocytosis
Lymph node	Mesenteric Lymph Node	Degeneration, Cystic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Thyroid		Cystic Follicles
Uterus	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C12

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Eye

Lung

Salivary gland

Thymus

Cataract

Congestion, Nos

Lymphocytic Inflammatory Infiltrate

Lymphocytic Inflammatory Infiltrate

Congestion, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C13

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Eye

Retina

Degeneration, Nos

Heart

Myocardium Nos

Inflammation, Chronic

Lung

Hemorrhage

Stomach

Fundus

Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C14

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Cataract
	Sclera	Degeneration, Nos
Heart	Myocardium Nos	Mineralization
Kidney	Papilla	Fibrosis
		Mineralization
Liver	Bile Duct	Nephropathy
Lung	Alveoli	Hyperplasia, Nos
Nasal cavity		Histiocytosis
Stomach		Inflammation, Suppurative
Thymus	Fundus	Degeneration, Cystic
Unspecified	Multiple Organs Nos	Hyperplasia, Epithelial
		Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C15

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C17

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Heart

Myocardium Nos

Inflammation, Chronic

Lung

Congestion, Nos

Salivary gland

Inflammation, Chronic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C18

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Inflammation, Chronic
Lung		Congestion, Nos
		Lymphocytic Inflammatory Infiltrate
		Perivascular Cuffing
Salivary gland		Inflammation, Chronic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C19

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Bone marrow

Skin

Atrophy, Nos

Erosion

Exfoliative Dermatitis

Inflammation, Acute

Thymus

Depletion, Lymphoid

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C20

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye		Cataract
	Retina	Degeneration, Nos
Kidney		Nephropathy
Liver		Angiectasis
		Cytoplasmic Change, Basophilic
Lung		Hemorrhage
	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C21

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Eye

Retina

Degeneration, Nos

Lung

Congestion, Nos

Hemorrhage

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C22

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Eye

Retina

Cataract

Degeneration, Nos

Inflammation, Suppurative

Kidney

Nephropathy

Pituitary gland

Anterior Pituitary

Cyst, Nos

Skin

Head Nos

Carcinoma, Nos

Stomach

Forestomach

Hyperplasia, Epithelial

Thymus

Forestomach

Inflammation, Chronic

Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C23

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Adrenal gland		Lipoidosis
	Cortex Nos	Necrosis, Focal
Bone	Femur	Fibrosis, Myelo
Brain	Meninges	Hemorrhage
Eye		Cataract
	Retina	Degeneration, Nos
	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Angiectasis
	Centrilobular	Necrosis, Nos
Lung		Congestion, Nos
		Edema, Nos
		Hemorrhage
		Inflammation, Acute
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Forestomach	Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C24

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Lung		Hemorrhage
Stomach	Forestomach	Hyperplasia, Epithelial
	Forestomach	Inflammation, Chronic

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C25

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Lipoidosis
Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
		Inflammation, Granulomatous
		Inflammation, Interstitial
Lymph node	Mesenteric Lymph Node	Degeneration, Cystic
Mammary gland		Fibroadenoma
		Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C26

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Larynx

Inflammation, Suppurative

Lymph node

Mediastinal Lymph Node

Hemorrhage

Mammary gland

Fibroadenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C27

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal Lipoidosis
Brain	Stem	Displacement, Nos
Eye		Cataract
	Retina	Degeneration, Nos
	Sclera	Mineralization
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C28

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland

Adenoma, Nos

Hyperplasia, Epithelial

Inflammation, Suppurative

Eye

Cataract

Retina

Degeneration, Nos

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Lung

Alveoli

Histiocytosis

Lymph node

Mandibular Lymph Node

Degeneration, Cystic

Nasal cavity

Inflammation, Suppurative

Pituitary gland

Anterior Pituitary

Cyst, Nos

Stomach

Fundus

Degeneration, Cystic

Thymus

Hyperplasia, Epithelial

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

Abdominal Cavity

Necrosis, Fat

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C29

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Lung

Thyroid

Edema, Nos

Cyst, Ultimobranchial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C30

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Fibrosis
Kidney		Cyst, Nos
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell
Unspecified		Fibroma
	Abdominal Cavity	Necrosis, Fat
Vagina		Hyperkeratosis

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C31

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Liver		Angiectasis
		Fibrosis, Cholangio
Lung	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Vagina		Cyst, Epidermal Inclusion

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C32

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Blood vessel

Pulmonary Artery Nos

Mineralization

Larynx

Hemorrhage

Lung

Hemorrhage

Spleen

Hemosiderosis

Uterus

Inflammation, Suppurative

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C33

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Brain	Stem	Displacement, Nos
Kidney		Nephropathy
Lung	Alveoli	Histiocytosis
Mammary gland		Galactocele
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell
Vagina		Cyst, Epidermal Inclusion

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C34

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland		Hyperplasia, Epithelial
Eye	Retina	Degeneration, Nos
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
Lung	Alveoli	Histiocytosis
Lymph node	Pancreatic Lymph Node	Degeneration, Cystic
	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Fibroadenoma
		Galactocele
Pancreas		Acinar-Cell Adenoma
	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C35

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Degeneration, Nos
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat
Uterus		Hematoma, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C36

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye		Cataract
	Retina	Degeneration, Nos
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Angiectasis
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Abdominal Cavity	Necrosis, Fat
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C37

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Heart

Myocardium Nos

Inflammation, Chronic

Lung

Congestion, Nos

Edema, Nos

Stomach

Fundus

Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C38

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye		Cataract
	Retina	Degeneration, Nos
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Angiectasis
		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C39

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Brain	Cerebellum Nos	Granular-Cell Tumor, Nos
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Lymphocytic Inflammatory Infiltrate
Liver		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Fibroadenoma
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C40

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Blood vessel
Eye

Pulmonary Artery Nos

Mineralization

Kidney

Retina

Cataract

Liver

Bile Duct

Degeneration, Nos

Lung

Alveoli

Nephropathy

Pituitary gland

Anterior Pituitary

Hyperplasia, Nos

Stomach

Forestomach

Histiocytosis

Unspecified

Multiple Organs Nos

Cyst, Nos

Squamous Cell Carcinoma

Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C41

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Eye

Heart

Kidney

Liver

Lung

Mammary gland

Nasal cavity

Pituitary gland

Stomach

Thymus

Retina

Sclera

Myocardium Nos

Bile Duct

Alveoli

Anterior Pituitary

Fundus

Lipoidosis

Cataract

Degeneration, Nos

Mineralization

Fibrosis

Nephropathy

Hyperplasia, Nos

Histiocytosis

Fibroadenoma

Hemorrhage

Cyst, Nos

Degeneration, Cystic

Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C42

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Kidney

Pyelonephritis, Nos

Pituitary gland

Anterior Pituitary

Cyst, Nos

Unspecified

Abdominal Cavity

Necrosis, Fat

Urinary bladder

Inflammation, Acute

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C43

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Degeneration, Nos
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
	Acinus	Hyperplasia, Nos
		Metaplasia, Nos
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C44

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Degeneration, Nos
Kidney		Nephropathy
Liver		Angiectasis
		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C45

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Cataract
	Sclera	Degeneration, Nos
Kidney		Mineralization
Liver		Nephropathy
		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C46

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Lung

Congestion, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C47

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Larynx

Lung

Stomach

Fundus

Hemorrhage

Inflammation, Interstitial

Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C48

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Lung

Pancreas

Thymus

Acinus

Edema, Nos

Atrophy, Nos

Hemorrhage

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C49

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Kidney

Nephropathy

Pituitary gland

Anterior Pituitary

Adenoma, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1_C50

TRT#: 1

SEX: Female

DAY ON TEST:

DOSE: 600.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland

Dilatation, Ducts

Eye

Retina

Inflammation, Suppurative

Heart

Sclera

Degeneration, Nos

Kidney

Myocardium Nos

Mineralization

Liver

Bile Duct

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Lung

Hyperplasia, Nos

Inflammation, Multifocal

Mammary gland

Alveoli

Epithelialization

Histiocytosis

Stomach

Fundus

Fibroadenoma

Degeneration, Cystic

Uterus

Endometrium

Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C01

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Degeneration, Nos
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung		Inflammation, Granulomatous
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C02

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Eye

Retina

Degeneration, Nos

Inflammation, Chronic

Sclera

Mineralization

Porphyrin

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Hernia, Nos

Lung

Inflammation, Multifocal

Thymus

Inflammation, Granulomatous

Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C03

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye

Retina

Cataract

Sclera

Degeneration, Nos

Kidney

Mineralization

Lung

Alveoli

Nephropathy

Lymph node

Histiocytosis

Inflammation, Granulomatous

Pancreas

Acinus

Hyperplasia, Lymphoid

Plasmacytosis

Unspecified

Atrophy, Nos

Myxosarcoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C04

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Degeneration, Nos
Heart		Fibroelastosis, Nos
Liver	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C05

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Lipoidosis
Eye	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Hemorrhage
	Alveoli	Histiocytosis
		Inflammation, Interstitial
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Uterus	Endometrium	Hyperplasia, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C06

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Stomach	Fundus	Degeneration, Cystic
Thyroid		Follicular-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C07

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Pheochromocytoma
Eye	Retina	Degeneration, Nos
	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		C-Cell Carcinoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C08

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland

Eye

Heart

Kidney

Liver

Lung

Pituitary gland

Thymus

Retina

Sclera

Myocardium Nos

Bile Duct

Alveoli

Anterior Pituitary

Dilatation, Ducts

Degeneration, Nos

Mineralization

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Histiocytosis

Cyst, Nos

Ectopia

Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C09

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland

Blood vessel

Unspecified

Pulmonary Artery Nos

Mediastinum Nos

Multiple Organs Nos

Abdominal Cavity

Pheochromocytoma

Mineralization

Hemorrhage

Leukemia, Mononuclear Cell

Necrosis, Fat

Endometrial Stromal Polyp

Uterus

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C10

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Eye		Cataract
	Retina	Degeneration, Nos
	Sclera	Mineralization
Kidney		Nephropathy
Liver		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
		Inflammation, Granulomatous
Mammary gland		Dilatation, Ducts
Pancreas	Acinus	Atrophy, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Abdominal Cavity	Necrosis, Fat
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C11

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal Pheochromocytoma
Eye	Sclera	Mineralization
Harderian gland	Harderian Gland	Inflammation, Chronic
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Cystadenoma, Nos
Nasal cavity		Inflammation, Serous
Pituitary gland	Anterior Pituitary	Angiectasis
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Cyst, Ultimobranchial
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C12

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Kidney		Nephropathy
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C13

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung		Epithelialization
		Hemorrhage
	Alveoli	Histiocytosis
		Inflammation, Interstitial
Lymph node	Mediastinal Lymph Node	Hemosiderosis
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thyroid		C-Cell Adenoma
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C14

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver	Bile Duct	Cyst, Nos
		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Congestion, Nos
		Hemorrhage
		Hemosiderosis
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C15

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Eye	Sclera	Mineralization
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Cystadenoma, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Cyst, Ultimobranchial
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C16

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Eye	Retina	Degeneration, Nos
	Sclera	Mineralization
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C17

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Degeneration, Nos
Harderian gland	Harderian Gland	Inflammation, Chronic
Kidney		Hemorrhage
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Granulomatous
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C18

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
		Metamorphosis, Fatty
Mammary gland		Adenoma, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C19

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Eye		Inflammation, Chronic
Kidney		Metamorphosis, Fatty Nephropathy
Liver		Cytoplasmic Change, Basophilic Metamorphosis, Fatty
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Forestomach	Ulcer, Nos
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C20

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland		Adenoma, Nos
Harderian gland	Hardarian Gland	Inflammation, Chronic
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C21

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Cataract
	Sclera	Degeneration, Nos
Harderian gland	Harderian Gland	Mineralization
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Fibrosis
Liver		Nephropathy
		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hyperplasia, Focal
Thymus		Hyperplasia, Epithelial
Thyroid		C-Cell Carcinoma
		Follicular-Cell Adenoma
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C22

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Degeneration, Nos
Harderian gland	Hardarian Gland	Inflammation, Chronic
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Angiectasis
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Cystic Follicles

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C23

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Angiectasis
		Lipoidosis
Eye	Retina	Degeneration, Nos
	Sclera	Mineralization
Harderian gland	Hardarian Gland	Lymphocytic Inflammatory Infiltrate
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
Mammary gland		Dilatation, Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
Skin		Ulcer, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C24

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland		Dilatation, Ducts
Eye		Cataract
	Retina	Degeneration, Nos
Harderian gland	Hardarian Gland	Lymphocytic Inflammatory Infiltrate
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
		Inflammation, Granulomatous
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Abdominal Cavity	Necrosis, Fat
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C25

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland		Carcinoma, Nos
Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Fibrosis
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C26

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Eye	Sclera	Mineralization
Harderian gland	Harderian Gland	Inflammation, Chronic
Heart	Myocardium Nos	Fibrosis
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Mammary gland		Dilatation, Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C27

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Lipoidosis
Eye	Retina	Degeneration, Nos
Harderian gland	Harderian Gland	Inflammation, Chronic
Heart	Myocardium Nos	Fibrosis
Liver	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Angiectasis
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C28

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Kidney

Lung

Unspecified

Leg

Pigmentation, Nos

Hemangiosarcoma, Metastatic

Hemangiosarcoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C29

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Retina	Degeneration, Nos
Heart	Myocardium Nos	Fibrosis
Liver		Cytoplasmic Change, Basophilic Ectopia
Lung	Bile Duct	Hyperplasia, Nos
	Alveoli	Histiocytosis Inflammation, Granulomatous Inflammation, Interstitial
Lymph node	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Fibroadenoma
Pancreas		Metaplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C30

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Bone	Femur	Fibrosis, Myelo
Eye	Retina	Degeneration, Nos
Liver		Cytoplasmic Change, Basophilic
Salivary gland		Lymphocytic Inflammatory Infiltrate
Unspecified	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C31

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland		Abscess, Nos
Liver		Ectopia
	Bile Duct	Hyperplasia, Nos
Lung		Alveolar/Bronchiolar Adenoma
	Alveoli	Histiocytosis
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
	Mandibular Lymph Node	Plasmacytosis
Nasal cavity		Hemorrhage
Pancreas		Metaplasia, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thyroid		Cyst, Ultimobranchial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C32

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye
Harderian gland
Liver

Sclera
Harderian Gland

Lung
Pituitary gland
Stomach
Thymus

Bile Duct
Alveoli
Anterior Pituitary
Fundus

Unspecified
Uterus

Multiple Organs Nos
Endometrium

Mineralization
Inflammation, Chronic
Cytoplasmic Change, Basophilic
Hyperplasia, Nos
Histiocytosis
Adenoma, Nos
Degeneration, Cystic
Hemorrhage
Hyperplasia, Epithelial
Leukemia, Mononuclear Cell
Cyst, Nos
Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C33

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Brain	Stem	Displacement, Nos
Eye	Sclera	Mineralization
Harderian gland	Harderian Gland	Lymphocytic Inflammatory Infiltrate
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
	Periportal	Metamorphosis, Fatty
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Angiectasis
	Anterior Pituitary	Hyperplasia, Focal
Skin		Inflammation, Chronic
		Ulcer, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C34

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Medulla

Hyperplasia, Focal

Harderian gland

Hardarian Gland

Lymphocytic Inflammatory Infiltrate

Heart

Embolus, Septic

Liver

Bile Duct

Hyperplasia, Nos

Unspecified

Multiple Organs Nos

Necrosis, Nos

Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C35

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Esophagus		Hemorrhage
Harderian gland	Harderian Gland	Lymphocytic Inflammatory Infiltrate
Kidney		Metamorphosis, Fatty
	Papilla	Mineralization
Liver		Metamorphosis, Fatty
Lung	Alveoli	Histiocytosis
Mammary gland		Dilatation, Ducts
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C36

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Eye	Sclera	Mineralization
Harderian gland	Harderian Gland	Lymphocytic Inflammatory Infiltrate
Heart	Myocardium Nos	Fibrosis
Kidney		Hemorrhage
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Granulomatous Focal
		Inflammation, Multifocal
Lung		Alveolar/Bronchiolar Adenoma
	Alveoli	Histiocytosis
		Inflammation, Interstitial
Lymph node	Mediastinal Lymph Node	Hemorrhage
Ovary		Cyst, Parovarian
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C37

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Lung

Congestion, Nos

Salivary gland

Lymphocytic Inflammatory Infiltrate

Inflammation, Chronic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C38

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Nasal cavity		Inflammation, Suppurative
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C39

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Harderian gland

Hardarian Gland

Lymphocytic Inflammatory Infiltrate

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Lung

Alveoli

Histiocytosis

Inflammation, Granulomatous

Mammary gland

Fibroadenoma

Pancreas

Acinus

Atrophy, Nos

Pituitary gland

Anterior Pituitary

Cyst, Nos

Stomach

Fundus

Degeneration, Cystic

Thymus

Hyperplasia, Epithelial

Unspecified

Multiple Organs Nos

Leukemia, Mononuclear Cell

Thoracic Cavity Nos

Necrosis, Fat

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C40

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Lipoidosis
Eye	Retina	Degeneration, Nos
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C41

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Kidney

Liver

Lung

Alveoli

Lymph node

Mediastinal Lymph Node

Mammary gland

Pituitary gland

Anterior Pituitary

Stomach

Fundus

Uterus

Pheochromocytoma

Nephropathy

Cytoplasmic Change, Basophilic

Histiocytosis

Squamous Cell Carcinoma, Uncertain Prim/Meta

Hemorrhage

Adenocarcinoma, Nos

Fibroadenoma

Adenoma, Nos

Degeneration, Cystic

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C42

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Liver	Bile Duct	Hyperplasia, Nos
Ovary		Cyst, Parovarian
Pituitary gland	Anterior Pituitary	Cyst, Nos
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C43

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Heart

Myocardium Nos

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Inflammation, Multifocal

Lung

Alveoli

Histiocytosis

Stomach

Fundus

Degeneration, Cystic

Thymus

Hyperplasia, Epithelial

Thyroid

C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C44

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Brain	Stem	Displacement, Nos
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Ectopia
		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C45

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal Pheochromocytoma
Eye	Retina Sclera	Cataract Degeneration, Nos Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary Anterior Pituitary	Angiectasis Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C46

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Angiectasis

Brain

Stem

Degeneration, Lipoid

Eye

Carcinoma, Nos, Invasive

Kidney

Inflammation, Suppurative

Liver

Nephropathy

Lung

Alveoli

Cytoplasmic Change, Basophilic

Mammary gland

Histiocytosis

Pituitary gland

Anterior Pituitary

Inflammation, Interstitial

Stomach

Fundus

Fibroadenoma

Carcinoma, Nos

Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C47

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Cortex Nos

Angiectasis

Hemosiderosis

Pheochromocytoma

Bone

Femur

Fibrosis, Myelo

Eye

Retina

Degeneration, Nos

Sclera

Mineralization

Harderian gland

Hardarian Gland

Lymphocytic Inflammatory Infiltrate

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Ground-Glass

Bile Duct

Hyperplasia, Nos

Lung

Alveoli

Histiocytosis

Pituitary gland

Anterior Pituitary

Adenoma, Nos

Thymus

Hyperplasia, Epithelial

Unspecified

Abdominal Cavity

Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C48

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Sclera	Mineralization
Harderian gland	Hardarian Gland	Lymphocytic Inflammatory Infiltrate
Kidney		Hemorrhage
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Granulomatous
		Inflammation, Interstitial
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Urinary bladder		Fibrosis, Focal
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C49

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland

Harderian gland

Heart

Kidney

Liver

Lymph node

Nasal cavity

Pituitary gland

Unspecified

Urinary bladder

Harderian Gland

Atrium

Bile Duct

Mandibular Lymph Node

Anterior Pituitary

Multiple Organs Nos

Lipoidosis

Lymphocytic Inflammatory Infiltrate

Thrombosis, Nos

Nephropathy

Hyperplasia, Nos

Necrosis, Coagulative

Necrosis, Nos

Inflammation, Chronic

Cyst, Nos

Leukemia, Mononuclear Cell

Transitional-Cell Papilloma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 2_C50

TRT#: 2

SEX: Female

DAY ON TEST:

DOSE: 300.0 MG/KG

DISP: Natural Death

HISTO:

OBSERVATIONS

Heart	Myocardium Nos Atrium	Fibrosis Thrombosis, Nos
Kidney		Nephropathy
Liver	Centrilobular	Metamorphosis, Fatty Necrosis, Coagulative
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Angiectasis
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C01

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Kidney		Hemorrhage
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
Lung		Hemosiderosis
Mammary gland		Cystadenoma, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C02

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland		Inflammation, Suppurative
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Inflammation, Multifocal
Lung		Hemosiderosis
Lymph node	Mesenteric Lymph Node	Hemorrhage
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C03

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Kidney

Hemorrhage

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Inflammation, Multifocal

Lung

Inflammation, Interstitial

Lymph node

Mediastinal Lymph Node

Hemorrhage

Pituitary gland

Anterior Pituitary

Cyst, Nos

Spleen

Hyperplastic Nodule

Thymus

Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C04

TRT#: 3

DOSE: 0

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST:

HISTO:

OBSERVATIONS

Clitoral gland		Dilatation, Ducts
Heart	Myocardium Nos	Fibrosis
Liver		Angiectasis
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung		Hemosiderosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mediastinal Lymph Node	Hemosiderosis
Mammary gland		Fibroadenoma
		Galactocele
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thyroid		Cyst, Ultimobranchial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C05

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung		Inflammation, Interstitial
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C06

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Fibrosis
Kidney		Hemorrhage
Liver	Bile Duct	Hyperplasia, Nos
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C07

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Inflammation, Interstitial
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Nos
		Inflammation, Multifocal
		Neoplastic Nodule
Lung		Hemosiderosis
		Inflammation, Interstitial
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C08

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Blood vessel
Heart
Liver

Pulmonary Artery Nos
Myocardium Nos

Mineralization
Fibrosis
Cytoplasmic Change, Basophilic
Cytoplasmic Change, Ground-Glass

Lung
Pancreas
Stomach

Bile Duct

Hyperplasia, Nos
Hemosiderosis
Atrophy, Nos
Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C09

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Lymph node	Mesenteric Lymph Node	Hemorrhage
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C10

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Kidney		Hemorrhage
Liver		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Uterus		Hydrometra

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C11

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
	Anterior Pituitary	Hemorrhage
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		C-Cell Adenoma
Unspecified	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C12

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
Spleen		Hyperplasia, Lymphoid
Thymus		Hyperplasia, Epithelial
Thyroid		C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C13

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Heart

Liver

Lung

Pituitary gland

Salivary gland

Stomach

Unspecified

Myocardium Nos

Bile Duct

Alveoli

Anterior Pituitary

Fundus

Multiple Organs Nos

Abdominal Cavity

Lipoidosis

Fibrosis

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Histiocytosis

Cyst, Nos

Inflammation, Chronic

Metaplasia, Squamous

Degeneration, Cystic

Leukemia, Mononuclear Cell

Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C14

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos Medulla	Hyperplasia, Focal Hyperplasia, Focal Lipoidosis
Clitoral gland		Adenoma, Nos Hyperplasia, Epithelial
Eye	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver	Bile Duct	Cytoplasmic Change, Basophilic Hyperplasia, Nos Inflammation, Multifocal
Lung	Alveoli	Histiocytosis Inflammation, Interstitial
Lymph node	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Adenoma, Nos
Ovary		Granulosa-Cell Tumor
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C15

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Kidney		Nephropathy
Liver		Angiectasis
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Fibroadenoma
		Inflammation, Granulomatous
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
	Forestomach	Inflammation, Chronic
Thymus		Hyperplasia, Epithelial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C16

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Brain	Stem	Displacement, Nos
Kidney		Nephropathy
Liver		Angiectasis
		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C17

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Medulla	Hyperplasia, Focal Pheochromocytoma
Brain	Stem	Displacement, Nos
Eye	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis Inflammation, Interstitial
Mammary gland		Adenocarcinoma, Nos Dilatation, Ducts Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C18

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Pheochromocytoma
Heart	Myocardium Nos	Fibrosis
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Ground-Glass
Lung		Foreign Body, Nos
	Alveoli	Histiocytosis
		Inflammation, Granulomatous
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hemorrhage
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C19

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mesenteric Lymph Node	Hemorrhage
Pancreas	Acinus	Atrophy, Nos
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C20

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Kidney		Nephropathy
Liver	Periportal	Metamorphosis, Fatty
Lung		Congestion, Nos
	Alveoli	Histiocytosis
Skin	Head	Basal-Cell Tumor
Unspecified	Mediastinum Nos	Inflammation, Acute

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C21

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Bone	Femur	Osteosclerosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic Inflammation, Multifocal
Lung	Alveoli	Histiocytosis Inflammation, Interstitial
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Cyst, Nos Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C22

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

Kidney

Papilla

Mineralization

Lung

Bronchopneumonia, Nos

Foreign Material, Nos

Lymph node

Mediastinal Lymph Node

Hemorrhage

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C23

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland		Dilatation, Ducts
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C24

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C25

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Degeneration, Nos
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C26

TRT#: 3

DOSE: 0

SEX: Female

DISP: Terminal Sacrifice

DAY ON TEST:

HISTO:

OBSERVATIONS

Clitoral gland		Adenoma, Nos
Eye	Sclera	Mineralization
Liver		Cytoplasmic Change, Basophilic
Lung	Alveoli	Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Hemorrhage
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C27

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Eye

Heart

Kidney

Liver

Sclera

Myocardium Nos

Bile Duct

Alveoli

Mediastinal Lymph Node

Lung

Lymph node

Salivary gland

Thymus

Thyroid

Lipoidosis

Mineralization

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Hyperplasia, Focal

Hyperplasia, Nos

Histiocytosis

Hemorrhage

Metaplasia, Squamous

Hyperplasia, Epithelial

Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C28

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Neoplastic Nodule
Lung	Alveoli	Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Angiectasis
Stomach	Fundus	Degeneration, Cystic
Thyroid		Hyperplasia, C Cell
Unspecified	Abdominal Cavity	Necrosis, Fat
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C29

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Follicular-Cell Adenoma
		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C30

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Lung		Congestion, Nos
		Edema, Nos
		Inflammation, Acute
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Cholesterol Deposit
	Anterior Pituitary	Cyst, Nos
Thymus		Hemorrhage
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
Uterus		Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C31

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Clitoral gland		Dilatation, Ducts
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Nos
		Inflammation, Multifocal
		Metamorphosis, Fatty
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Mammary gland		Dilatation, Ducts
		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		C-Cell Adenoma

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C32

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Angiectasis
Heart	Myocardium Nos	Fibrosis
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Nos
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Thymus		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C33

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Liver	Bile Duct	Hyperplasia, Nos Inflammation, Multifocal
Lung	Alveoli	Histiocytosis Inflammation, Interstitial
Lymph node	Mesenteric Lymph Node	Degeneration, Cystic
	Pancreatic Lymph Node	Degeneration, Cystic
	Pancreatic Lymph Node	Hemosiderosis
Mammary gland		Fibroadenoma
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C34

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Liver

Lung

Mammary gland

Pituitary gland

Stomach

Bile Duct

Alveoli

Anterior Pituitary

Fundus

Lipoidosis

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Histiocytosis

Fibroadenoma

Cyst, Nos

Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C35

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland

Medulla

Angiectasis

Heart

Myocardium Nos

Hyperplasia, Focal

Liver

Fibrosis

Lung

Cytoplasmic Change, Basophilic

Inflammation, Multifocal

Alveolar/Bronchiolar Adenoma

Mammary gland

Alveoli

Histiocytosis

Pituitary gland

Anterior Pituitary

Fibroadenoma

Stomach

Fundus

Adenoma, Nos

Thymus

Degeneration, Cystic

Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C36

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Pheochromocytoma
Eye	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Nos
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Fibrosis
		Hyperplasia, Epithelial
Thyroid		Cystic Follicles

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C37

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Sclera	Mineralization
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C38

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Heart	Myocardium Nos	Fibrosis
Liver	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Abdominal Cavity	Necrosis, Fat
Uterus		Hematoma, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C39

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland
Kidney
Liver

Lung
Pituitary gland
Stomach

Unspecified
Uterus

Bile Duct
Alveoli
Anterior Pituitary
Fundus
Glandular Stomach
Multiple Organs Nos
Endometrium

Lipoidosis
Nephropathy
Cytoplasmic Change, Basophilic
Hyperplasia, Focal
Hyperplasia, Nos
Histiocytosis
Cyst, Nos
Degeneration, Cystic
Fibrosis
Leukemia, Mononuclear Cell
Cyst, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C40

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

Pituitary gland

Anterior Pituitary

Angiectasis

Spleen

Hematopoiesis

Stomach

Fundus

Degeneration, Cystic

Uterus

Endometrial Stromal Polyp

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C41

TRT#: 3

DOSE: 0

SEX: Female

DISP: Natural Death

DAY ON TEST:

HISTO:

OBSERVATIONS

Liver		Metamorphosis, Fatty
Pituitary gland	Anterior Pituitary	Hemorrhage
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell
	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C42

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Sclera	Mineralization
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Epithelialization
	Alveoli	Histiocytosis
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Lymphocytic Inflammatory Infiltrate
Unspecified	Abdominal Cavity	Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C43

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

Adrenal gland

Brain

Clitoral gland

Heart

Kidney

Liver

Lung

Lymph node

Pituitary gland

Medulla

Stem

Myocardium Nos

Bile Duct

Mandibular Lymph Node

Anterior Pituitary

Angiectasis

Hyperplasia, Focal

Displacement, Nos

Hemorrhage

Adenoma, Nos

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Focal Cellular Change

Hyperplasia, Nos

Congestion, Nos

Inflammation, Granulomatous

Hemorrhage

Adenoma, Nos

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C44

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Pulmonary Artery Nos	Mineralization
Clitoral gland		Adenoma, Nos
		Inflammation, Chronic
Heart	Myocardium Nos	Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Ground-Glass
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
Pituitary gland	Anterior Pituitary	Cyst, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		C-Cell Adenoma
		Cyst, Ultimobranchial
Unspecified	Multiple Organs Nos	Leukemia, Mononuclear Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C45

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Blood vessel
Clitoral gland
Liver

Pulmonary Artery Nos

Mineralization
Abscess, Nos
Cytoplasmic Change, Basophilic
Cytoplasmic Change, Nos

Lung
Pituitary gland
Stomach
Thymus

Bile Duct
Alveoli
Anterior Pituitary
Fundus

Hyperplasia, Nos
Histiocytosis
Cyst, Nos
Degeneration, Cystic
Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C46

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Sclera	Mineralization
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Inflammation, Multifocal
Lung	Alveoli	Histiocytosis
Lymph node	Mandibular Lymph Node	Degeneration, Cystic
	Mesenteric Lymph Node	Degeneration, Cystic
	Mediastinal Lymph Node	Hemorrhage
Pituitary gland	Anterior Pituitary	Adenoma, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Thyroid		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C47

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Natural Death

HISTO:

OBSERVATIONS

Harderian gland
Lung

Hardarian Gland

Lymphocytic Inflammatory Infiltrate
Congestion, Nos
Edema, Nos

Unspecified

Abdominal Cavity

Necrosis, Fat

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C48

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Eye	Sclera	Mineralization
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung	Alveoli	Histiocytosis
		Inflammation, Interstitial
Ovary		Cyst, Parovarian
Stomach	Fundus	Degeneration, Cystic

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C49

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Dosing Accident

HISTO:

OBSERVATIONS

Nasal cavity

Hemorrhage

PRIMARY CAUSE OF DEATH

-

* PROTOCOL REQUIRED TISSUE

Experiment Number: C55572

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: D-Limonene

CAS Number: 5989-27-5

Date Report Requested: 10/26/2014

Time Report Requested: 09:45:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 3_C50

TRT#: 3

SEX: Female

DAY ON TEST:

DOSE: 0

DISP: Terminal Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Ectopia Lipoidosis
Eye	Sclera	Mineralization
Heart		Arteriosclerosis, Nos
Kidney		Nephropathy
Liver	Bile Duct	Cytoplasmic Change, Basophilic Hyperplasia, Nos Inflammation, Multifocal
Lung		Inflammation, Interstitial
Mammary gland		Fibroadenoma Hyperplasia, Nodular
Pancreas	Acinus	Atrophy, Nos
Stomach	Fundus	Degeneration, Cystic
Thymus		Hyperplasia, Epithelial
Unspecified	Abdominal Cavity	Necrosis, Fat
Uterus	Endometrium	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

**** END OF REPORT ****

* PROTOCOL REQUIRED TISSUE