

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

<b>C Number:</b>	C55527
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Male

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 1\_001

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Trachea

Submucosa

Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_002

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Natural Death

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

**OBSERVATIONS**

Brain		Congestion, Acute Passive
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Liver		Hepatocellular Carcinoma
Lung		Hepatocellular Carcinoma, Metastatic
Nasal cavity	Nasal Gland	Cyst, Nos
		Empyema
		Erosion
	Nasal Gland	Hyperplasia, Epithelial
		Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Skin		Cyst, Epidermal Inclusion
		Inflammation, Chronic
Spleen		Hematopoiesis
Trachea	Submucosa	Cyst, Nos
		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_003

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Brain  
Lung  
Nasal cavity

Cortex Nos  
Thalamus

Hyperplasia, Focal  
Mineralization  
Inflammation, Chronic  
Empyema  
Erosion  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Regeneration, Nos  
Cyst, Nos

Trachea

Submucosa

PRIMARY CAUSE OF DEATH

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_004

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Nasal cavity

Capsule

Hyperplasia, Nos  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Hyperkeratosis  
Squamous Cell Papilloma  
Cyst, Nos

Stomach

Forestomach

Trachea

Forestomach

Submucosa

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 1\_005

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
	Thalamus	Mineralization
Heart	Cardiac Valve	Degeneration, Muroid
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Testis		Atrophy, Nos
Trachea		Metaplasia, Squamous

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 1\_006

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Harderian gland  
Lymph node  
Nasal cavity  
Trachea

Capsule  
Hardarian Gland  
  
Submucosa

Hyperplasia, Nos  
Papillary Adenoma  
Lymphoma, Nos-Malignant  
Metaplasia, Squamous  
Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_007

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Aorta Nos	Inflammation, Chronic
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Inflammation, Chronic
Heart	Cardiac Valve	Degeneration, Muroid
Lung	Submucosa	Cyst, Nos
Lymph node	Mandibular Lymph Node	Inflammation, Suppurative
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_008

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
	Nasolacrimal Duct	Inflammation, Chronic
Lung	Submucosa	Cyst, Nos
		Inflammation, Chronic
Nasal cavity		Empyema
		Erosion
	Nasal Gland	Hyperplasia, Epithelial
		Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

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Experiment Number: C55527

Test Type: Long-Term

Route: Inhalation

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Epoxybutane

CAS Number: 106-88-7

Date Report Requested: 10/26/2014

Time Report Requested: 10:39:19

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_009

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Aorta Nos	Inflammation, Chronic
Eye	Nasolacrimal Duct	Erosion
	Nasolacrimal Duct	Inflammation, Suppurative
Heart	Cardiac Valve	Degeneration, Mucoïd
Kidney	Tubule	Dilatation, Nos
Liver		Hematopoiesis
Lung	Submucosa	Cyst, Nos
		Emphysema, Nos
		Inflammation, Acute Diffuse
		Mineralization
Nasal cavity		Empyema
		Erosion
		Giant-Cell, Multinucleate
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
Pancreas		Inflammation, Chronic Focal
Pituitary gland		Cytoplasmic Vacuolization
Testis		Atrophy, Nos
Tooth	Periodontal Tissues	Inflammation, Chronic
Trachea		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_010

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Coronary Artery Nos	Periarteritis
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Lymph node	Mandibular Lymph Node	Cyst, Nos
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_011

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Heart	Cardiac Valve	Degeneration, Muroid
Liver		Hepatocellular Adenoma
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
Skin	Hair Follicle	Atrophy, Nos
Spleen		Congestion, Acute Passive

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_012

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Brain  
  
Eye  
Lung  
Nasal cavity

Capsule  
Olfactory Sensory Epithelium  
Thalamus  
Nasolacrimal Duct

Hyperplasia, Nos  
Atrophy, Nos  
Mineralization  
Hyperplasia, Epithelial  
Inflammation, Necrotizing  
Empyema  
Erosion  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Regeneration, Nos

PRIMARY CAUSE OF DEATH

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 1\_013

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Brain  
Nasal cavity

Olfactory Sensory Epithelium

Atrophy, Nos  
Empyema  
Hyperplasia, Epithelial  
Hyperplasia, Nos  
Inflammation, Chronic  
Metaplasia, Squamous  
Cyst, Nos

Nasal Gland

Trachea

Submucosa

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_014

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Erosion
	Nasolacrimal Duct	Inflammation, Chronic
	Nasolacrimal Duct	Inflammation, Suppurative
Heart	Cardiac Valve	Degeneration, Muroid
	Epicardium	Inflammation, Suppurative
Lung	Submucosa	Cyst, Nos
		Perivascularitis
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_015

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Brain  
Lung  
Nasal cavity

Capsule  
Olfactory Sensory Epithelium  
Submucosa

Hyperplasia, Nos  
Atrophy, Nos  
Cyst, Nos  
Empyema  
Erosion  
Granulation Tissue  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Fibrosis, Focal  
Odontoma, Nos  
Cyst, Nos

Testis  
Tooth  
Trachea

Submucosa

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_016

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Aorta Nos	Inflammation, Chronic
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Heart	Cardiac Valve	Degeneration, Muroid
Liver		Hepatocellular Adenoma
Lung		Alveolar/Bronchiolar Adenoma
Lymph node	Mandibular Lymph Node	Cyst, Nos
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Regeneration, Nos
Testis		Hyperplasia, Interstitial Cell
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 1\_017

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Brain	Thalamus	Mineralization
Lung		Alveolar/Bronchiolar Adenoma
		Alveolar/Bronchiolar Carcinoma
Nasal cavity		Empyema
	Nasal Gland	Hyperplasia, Epithelial
		Hyperplasia, Nos
		Inflammation, Chronic

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 1\_018

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Natural Death

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

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**OBSERVATIONS**

Larynx		Hyperplasia, Epithelial
Lung		Inflammation, Necrotizing
Nasal cavity		Empyema
		Hyperplasia, Epithelial
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos
Unspecified		Inflammation, Chronic

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_019

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Capsule	Hyperplasia, Focal Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Intestine Small	Peyers Patch	Hyperplasia, Nos
Larynx	Submucosa	Cyst, Nos
Liver		Lymphocytic Inflammatory Infiltrate
Nasal cavity	Nasal Gland	Cyst, Nos Empyema Hyperplasia, Epithelial Inflammation, Chronic Metaplasia, Squamous
Skin	Hair Follicle	Atrophy, Nos
Stomach	Glandular Stomach	Cyst, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_020

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Thalamus	Mineralization
Eye	Lacrimal Gland	Lymphocytic Inflammatory Infiltrate
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Salivary gland		Lymphocytic Inflammatory Infiltrate
Trachea	Submucosa	Cyst, Nos
Ureter		Inflammation, Chronic

**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527

**Test Type:** Long-Term

**Route:** Inhalation

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 1,2-Epoxybutane

**CAS Number:** 106-88-7

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

**Time Report Requested:** 10:39:19

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

**Lab:** NA

**ANIMAL ID:** 1\_021

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Blood vessel  
Brain  
Heart  
Liver

Capsule  
Aorta Nos  
Olfactory Sensory Epithelium  
Cardiac Valve

Hyperplasia, Nos  
Inflammation, Chronic  
Atrophy, Nos  
Degeneration, Mucoïd  
Hepatocellular Adenoma  
Hepatocellular Carcinoma  
Necrosis, Nos

Lymph node  
Nasal cavity

Mandibular Lymph Node

Histiocytosis  
Hyperplasia, Epithelial  
Hyperplasia, Nos  
Inflammation, Chronic  
Metaplasia, Squamous  
Cyst, Nos  
Inflammation, Suppurative

Preputial gland

Nasal Gland

Deformity, Nos  
Dysplasia, Nos

Tooth

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_022

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Heart	Cardiac Valve	Degeneration, Muroid
Lung		Alveolar/Bronchiolar Carcinoma
Nasal cavity		Hyperplasia, Epithelial
		Metaplasia, Squamous
Testis		Atrophy, Nos
Thyroid		Hyperplasia, Follicular Cell
Trachea	Submucosa	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_023

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Brain	Thalamus	Mineralization
Kidney	Tubule	Crystals, Nos
Lung		Hyperplasia, Lymphoid
Nasal cavity		Hyperplasia, Epithelial
		Metaplasia, Squamous
Skin	Hair Follicle	Atrophy, Nos
Testis		Atrophy, Nos
Thyroid		Hyperplasia, Follicular Cell
Unspecified		Hemangiosarcoma

**PRIMARY CAUSE OF DEATH**

-



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 1\_024

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Ear  
Liver  
Nasal cavity

Capsule  
Left Ear

Hyperplasia, Nos  
Sarcoma, Nos  
Hepatocellular Adenoma  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Atrophy, Nos

Skin

Hair Follicle

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_025

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland		Cortical Carcinoma
Heart	Cardiac Valve	Degeneration, Muroid
Larynx		Inflammation, Nos
Lymph node	Mandibular Lymph Node	Histiocytosis
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Pituitary gland		Cyst, Nos
Skin	Hair Follicle	Atrophy, Nos
Testis		Atrophy, Nos
Tooth		Dysplasia, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_026

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium Choroid Plexus Nos Meninges	Atrophy, Nos Inflammation, Acute Inflammation, Acute Congestion, Acute Passive Empyema Erosion Hyperplasia, Epithelial
Lung		Hyperplasia, Nos Inflammation, Chronic Metaplasia, Squamous
Nasal cavity	Nasal Gland	

PRIMARY CAUSE OF DEATH

-

Experiment Number: C55527

Test Type: Long-Term

Route: Inhalation

Species/Strain: Mouse/B6C3F1

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 1,2-Epoxybutane

CAS Number: 106-88-7

Date Report Requested: 10/26/2014

Time Report Requested: 10:39:19

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 1\_027

TRT#: 1

SEX: Male

DAY ON TEST:

DOSE: 100 PPM

DISP: Moribund Sacrifice

HISTO:

OBSERVATIONS

Blood vessel	Coronary Artery Nos	Periarteritis
Bone marrow		Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Kidney		Pyelonephritis, Nos
Liver		Hepatocellular Carcinoma
		Necrosis, Nos
Lung		Congestion, Acute Passive
Lymph node	Mandibular Lymph Node	Histiocytosis
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Pancreas		Inflammation, Suppurative
Peritoneum		Inflammation, Suppurative
Prostate		Inflammation, Suppurative
Seminal vesicle		Inflammation, Suppurative
Spleen		Hematopoiesis
Testis	Tunica Vaginalis	Inflammation, Suppurative
Trachea	Submucosa	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_028

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Natural Death

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Kidney		Hemorrhage
Liver		Hepatocellular Carcinoma
		Mineralization
		Necrosis, Nos
Lung		Hepatocellular Carcinoma, Metastatic
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Peritoneum		Inflammation, Chronic Focal
Spleen		Hematopoiesis
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_029

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Aorta Nos	Inflammation, Chronic
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Heart	Cardiac Valve	Degeneration, Muroid
Lymph node	Mandibular Lymph Node	Histiocytosis
	Mandibular Lymph Node	Hyperplasia, Nos
Nasal cavity		Empyema
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
Tooth		Inflammation, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_030

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Nasal cavity	Nasal Gland	Cyst, Nos
		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_031

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
	Nasolacrimal Duct	Inflammation, Chronic
Liver		Hematopoiesis
Lung		Perivascularitis
Nasal cavity	Nasal Gland	Cyst, Nos
		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
		Squamous Cell Papilloma
Spleen		Hematopoiesis
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_032

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Heart	Cardiac Valve	Degeneration, Muroid
Larynx		Hyperplasia, Epithelial
	Submucosa	Inflammation, Nos
Liver		Hepatocellular Adenoma
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Spleen		Hematopoiesis
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:19  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_033

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium	Atrophy, Nos
	Lateral Ventricle Nos	Inflammation, Suppurative
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Kidney		Ectopia
		Fibrosis, Multifocal
Liver		Inflammation, Chronic Focal
Lung		Congestion, Acute Passive
	Submucosa	Cyst, Nos
Lymph node	Mandibular Lymph Node	Cyst, Nos
	Mandibular Lymph Node	Edema, Nos
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Stomach	Forestomach	Hyperkeratosis
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527

**Test Type:** Long-Term

**Route:** Inhalation

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 1,2-Epoxybutane

**CAS Number:** 106-88-7

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

**Time Report Requested:** 10:39:20

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

**Lab:** NA

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**ANIMAL ID:** 1\_034

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Adrenal gland  
Brain  
Kidney  
Nasal cavity

Capsule  
Olfactory Sensory Epithelium

Hyperplasia, Nos  
Atrophy, Nos  
Lymphocytic Inflammatory Infiltrate  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Cyst, Nos  
Atrophy, Nos  
Cyst, Nos

Pituitary gland  
Testis  
Trachea

Submucosa

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_035

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Brain  
Eye  
Lung  
Nasal cavity

Capsule  
Olfactory Sensory Epithelium  
Nasolacrimal Duct

Nasal Gland

Hyperplasia, Nos  
Atrophy, Nos  
Hyperplasia, Epithelial  
Alveolar/Bronchiolar Carcinoma  
Empyema  
Hyperplasia, Epithelial  
Hyperplasia, Nos  
Inflammation, Chronic  
Metaplasia, Squamous  
Regeneration, Nos

PRIMARY CAUSE OF DEATH

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_036

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium Thalamus	Atrophy, Nos Mineralization
Liver		Hepatocellular Carcinoma Necrosis, Nos
Lung		Alveolar/Bronchiolar Carcinoma
Nasal cavity		Empyema Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos Inflammation, Chronic Metaplasia, Squamous
Skin	Hair Follicle	Atrophy, Nos
Spleen		Hematopoiesis
Stomach	Forestomach	Hyperkeratosis

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_037

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Harderian gland  
Kidney

Capsule  
Harderian Gland  
Tubule

Hyperplasia, Nos  
Papillary Adenoma  
Crystals, Nos  
Nephrosis, Nos

Larynx  
Nasal cavity

Submucosa

Cyst, Nos  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Hematoma, Nos  
Hyperplasia, Follicular Cell  
Cyst, Nos

Peritoneum  
Thyroid  
Trachea

Submucosa

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 1\_038

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Brain  
Liver  
Nasal cavity

Olfactory Sensory Epithelium

Atrophy, Nos  
Hepatocellular Adenoma  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_039

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Brain  
Eye  
Liver  
Nasal cavity

Capsule  
Olfactory Sensory Epithelium  
Nasolacrimal Duct

Nasal Gland

Stomach  
Unspecified

Glandular Stomach  
Multiple Organs Nos

Hyperplasia, Nos  
Atrophy, Nos  
Hyperplasia, Epithelial  
Hematopoiesis  
Empyema  
Erosion  
Hyperplasia, Epithelial  
Hyperplasia, Nos  
Inflammation, Chronic  
Metaplasia, Squamous  
Regeneration, Nos  
Cyst, Nos  
Lymphoma, Histiocytic-Malignant Type

PRIMARY CAUSE OF DEATH

-



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_040

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Lung		Hyperplasia, Lymphoid
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 1\_041

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Brain  
Intestine Small  
Kidney  
Lung  
Nasal cavity

Olfactory Sensory Epithelium  
Ileum, Ileum

Atrophy, Nos  
Fibrosis  
Hyperplasia, Tubular Cell  
Inflammation, Chronic  
Hyperplasia, Epithelial

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 1\_042

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Nasal cavity

Nasal Gland

Testis

Empyema  
Hyperplasia, Epithelial  
Hyperplasia, Nos  
Inflammation, Chronic  
Metaplasia, Squamous  
Atrophy, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_043

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Aorta Nos	Inflammation, Chronic
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Larynx	Submucosa	Inflammation, Nos
Nasal cavity		Empyema
	Nasal Gland	Hyperplasia, Epithelial
		Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Tooth	Pulp Of Tooth	Abscess, Nos
		Inflammation, Nos
Trachea	Submucosa	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_044

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Kidney		Lymphocytic Inflammatory Infiltrate
Lung	Submucosa	Cyst, Nos
Lymph node	Mandibular Lymph Node	Hemosiderosis
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527

**Test Type:** Long-Term

**Route:** Inhalation

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 1,2-Epoxybutane

**CAS Number:** 106-88-7

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

**Time Report Requested:** 10:39:20

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

**Lab:** NA

**ANIMAL ID:** 1\_045

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 100 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
	Thalamus	Mineralization
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Kidney	Tubule	Crystals, Nos
		Hyperplasia, Tubular Cell
Liver		Hepatocellular Adenoma
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Nasal cavity		Empyema
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
Testis		Atrophy, Nos
Thyroid		Hyperplasia, Follicular Cell
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_046

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Heart	Cardiac Valve	Degeneration, Mucoïd
	Cardiac Valve	Hemosiderosis
Larynx		Hyperplasia, Epithelial
	Submucosa	Hyperplasia, Nos
		Perivasculitis
Lung	Submucosa	Cyst, Nos
		Emphysema, Nos
Nasal cavity	Nasal Gland	Cyst, Nos
		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
Stomach	Forestomach	Hyperkeratosis
	Forestomach	Hyperplasia, Epithelial
Trachea	Submucosa	Cyst, Nos
		Hyperplasia, Epithelial

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 1\_047

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Natural Death

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

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**OBSERVATIONS**

Adrenal gland  
Brain  
Kidney  
Liver  
Lung  
Nasal cavity

Capsule  
Olfactory Sensory Epithelium

Hyperplasia, Nos  
Atrophy, Nos  
Nephrosis, Nos  
Hepatocellular Carcinoma  
Congestion, Acute Passive  
Empyema

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 1\_048

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Lung	Alveolar/Bronchiolar Adenoma
Nasal cavity	Hyperplasia, Epithelial
	Metaplasia, Squamous
Preputial gland	Cyst, Nos
Spleen	Hematopoiesis

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_049

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Natural Death

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Heart		Abscess, Nos
Kidney		Pyelonephritis, Nos
Lymph node	Mesenteric Lymph Node	Hemorrhage
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Spleen		Hematopoiesis
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 1\_050

**TRT#:** 1  
**DOSE:** 100 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Capsule	Hyperplasia, Focal Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Lung		Inflammation, Chronic Inflammation, Necrotizing
Nasal cavity	Nasal Gland	Cyst, Nos Empyema Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos Inflammation, Chronic Metaplasia, Squamous Regeneration, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_001

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Accidentally Killed

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

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**OBSERVATIONS**

Lung Congestion, Acute Passive

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_002

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Eye	Nasolacrimal Duct	Inflammation, Suppurative
Liver		Cytoplasmic Change, Eosinophilic
Lung	Submucosa	Cyst, Nos
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Tooth	Pulp Of Tooth	Abscess, Nos
		Dysplasia, Nos
		Inflammation, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_003

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
	Thalamus	Mineralization
Liver		Hepatocellular Carcinoma
Lung		Alveolar/Bronchiolar Adenoma
	Submucosa	Cyst, Nos
Lymph node	Mesenteric Lymph Node	Edema, Nos
	Mesenteric Lymph Node	Hematopoiesis
	Mesenteric Lymph Node	Hyperplasia, Nos
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
Thyroid		Metaplasia, Squamous
Trachea	Submucosa	Follicular-Cell Adenoma
		Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_004

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Heart	Cardiac Valve	Endocardiosis
Kidney		Lymphocytic Inflammatory Infiltrate
Larynx	Submucosa	Cyst, Nos
Lung	Submucosa	Cyst, Nos
Nasal cavity		Inflammation, Chronic
		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_005

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Lung

Submucosa

Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_006

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Lung  
Nasal cavity

Capsule  
Submucosa

Nasal Gland

Skin  
Trachea

Hair Follicle  
Submucosa

Hyperplasia, Nos  
Cyst, Nos  
Empyema  
Hyperplasia, Epithelial  
Hyperplasia, Nos  
Inflammation, Chronic  
Atrophy, Nos  
Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_007

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Brain  
Lymph node  
Nasal cavity

Capsule  
Thalamus  
Mandibular Lymph Node

Hyperplasia, Nos  
Mineralization  
Hyperplasia, Nos  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_008

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Nasal cavity

Capsule

Hyperplasia, Nos  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous

Skin  
Thyroid  
Trachea

Hair Follicle

Atrophy, Nos  
Follicular-Cell Adenoma  
Cyst, Nos  
Inflammation, Focal

Submucosa  
Submucosa

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_009

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Heart	Cardiac Valve	Degeneration, Muroid
Kidney		Lymphocytic Inflammatory Infiltrate
Liver		Hepatocellular Adenoma
Lung	Submucosa	Cyst, Nos
Nasal cavity		Inflammation, Chronic
Salivary gland		Lymphocytic Inflammatory Infiltrate
Skin	Hair Follicle	Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_010

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Brain	Thalamus	Mineralization
Eye	Nasolacrimal Duct	Inflammation, Suppurative
Intestine Large	Colon	Parasitism
Larynx	Submucosa	Inflammation, Nos
Liver		Hepatocellular Adenoma
		Hepatocellular Carcinoma
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Lymphoma, Mixed-Malignant Type
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_011

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
	Nasolacrimal Duct	Inflammation, Chronic
Harderian gland	Harderian Gland	Papillary Adenoma
Liver		Hepatocellular Carcinoma
Nasal cavity		Inflammation, Chronic
		Metaplasia, Squamous
Pancreas	Islets	Islet-Cell Adenoma
Skin	Hair Follicle	Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_012

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Liver		Hepatocellular Adenoma Hepatocellular Carcinoma Necrosis, Nos
Nasal cavity		Empyema Erosion Hyperplasia, Epithelial Inflammation, Chronic Metaplasia, Squamous Regeneration, Nos
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 2\_013

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland

Cortex Nos  
Capsule

Cyst, Nos  
Hyperplasia, Nos

Brain

Olfactory Sensory Epithelium  
Thalamus

Atrophy, Nos

Lung

Nasal cavity

Trachea

Submucosa

Mineralization  
Alveolar/Bronchiolar Adenoma  
Inflammation, Chronic  
Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_014

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Heart	Cardiac Valve	Degeneration, Muroid
Larynx	Submucosa	Cyst, Nos
Liver		Hematopoiesis
Lymph node	Bronchial Lymph Node	Histiocytosis
Tooth	Pulp Of Tooth	Abscess, Nos
	Periodontal Tissues	Inflammation, Chronic
Trachea	Submucosa	Cyst, Nos
Urinary bladder		Hemangioma

PRIMARY CAUSE OF DEATH

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_015

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Liver		Hepatocellular Carcinoma
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 2\_016

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Lung  
Testis

Submucosa

Cyst, Nos  
Atrophy, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 2\_017

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Brain  
Nasal cavity

Capsule  
Olfactory Sensory Epithelium

Hyperplasia, Nos  
Atrophy, Nos  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Cyst, Nos

Trachea

Submucosa

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_018

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
	Nasolacrimal Duct	Inflammation, Chronic
Intestine Small	Peyers Patch	Hyperplasia, Nos
Kidney	Tubule	Cytoplasmic Vacuolization
Larynx	Submucosa	Inflammation, Nos
Lung		Alveolar/Bronchiolar Carcinoma
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Nasal cavity		Empyema
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Skin	Hair Follicle	Atrophy, Nos
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527

**Test Type:** Long-Term

**Route:** Inhalation

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 1,2-Epoxybutane

**CAS Number:** 106-88-7

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

**Time Report Requested:** 10:39:20

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

**Lab:** NA

**ANIMAL ID:** 2\_019

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Coronary Artery Nos	Periarteritis
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
	Nasolacrimal Duct	Inflammation, Chronic
	Nasolacrimal Duct	Inflammation, Suppurative
Liver		Hematopoiesis
Lung		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hyperplasia, Nos
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Regeneration, Nos
Skin	Hair Follicle	Atrophy, Nos
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527

**Test Type:** Long-Term

**Route:** Inhalation

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 1,2-Epoxybutane

**CAS Number:** 106-88-7

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

**Time Report Requested:** 10:39:20

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

**Lab:** NA

**ANIMAL ID:** 2\_020

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Capsule

Hyperplasia, Nos

Brain

Olfactory Sensory Epithelium

Atrophy, Nos

Thalamus

Mineralization

Heart

Cardiac Valve

Degeneration, Muroid

Kidney

Lymphocytic Inflammatory Infiltrate

Liver

Hepatocellular Adenoma

Lymph node

Bronchial Lymph Node

Abscess, Nos

Nasal cavity

Nasal Gland

Cyst, Nos

Empyema

Hyperplasia, Epithelial

Inflammation, Chronic

Trachea

Submucosa

Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_021

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Heart  
Nasal cavity

Capsule  
Cardiac Valve

Hyperplasia, Nos  
Degeneration, Muroid  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Atrophy, Nos  
Cyst, Nos

Skin  
Trachea

Hair Follicle  
Submucosa

PRIMARY CAUSE OF DEATH

-



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_022

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Natural Death

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

**OBSERVATIONS**

Eye	Nasolacrimal Duct Nasolacrimal Duct	Erosion Inflammation, Suppurative
Kidney		Hematopoiesis
Liver		Hepatocellular Carcinoma
Lung		Hepatocellular Carcinoma, Metastatic
Nasal cavity		Empyema Erosion Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos Inflammation, Chronic Metaplasia, Squamous Hepatocellular Carcinoma, Metastatic
Spleen		
Trachea	Submucosa	Cyst, Nos
Unspecified	Multiple Organs Nos	Lymphoma, Nos-Malignant

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_023

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Heart	Cardiac Valve	Degeneration, Muroid
Lung		Alveolar/Bronchiolar Carcinoma
Nasal cavity		Empyema
	Nasal Gland	Hyperplasia, Epithelial
		Hyperplasia, Nos
		Inflammation, Chronic
		Regeneration, Nos
Stomach	Glandular Stomach	Cyst, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_024

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Renal Artery Nos	Inflammation, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
	Nasolacrimal Duct	Inflammation, Suppurative
Kidney		Lymphocytic Inflammatory Infiltrate
Larynx		Perivasculitis
Nasal cavity		Empyema
		Erosion
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Testis	Scrotum Nos	Abscess, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_025

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Nasal cavity

Empyema  
Erosion  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Regeneration, Nos

Testis

Unspecified

Multiple Organs Nos

Atrophy, Nos  
Lymphoma, Nos-Malignant

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_026

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Heart  
Lung  
Nasal cavity

Capsule  
Cardiac Valve

Hyperplasia, Nos  
Degeneration, Muroid  
Inflammation, Chronic  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Hyperplasia, Follicular Cell

Thyroid

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_027

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Brain  
Heart  
Intestine Small  
Nasal cavity

Capsule  
Olfactory Sensory Epithelium  
Cardiac Valve  
Peyers Patch  
  
Nasal Gland

Hyperplasia, Nos  
Atrophy, Nos  
Degeneration, Muroid  
Hyperplasia, Nos  
Empyema  
Hyperplasia, Epithelial  
Hyperplasia, Nos  
Inflammation, Chronic  
Regeneration, Nos  
Atrophy, Nos

Testis

PRIMARY CAUSE OF DEATH

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_028

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Natural Death

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Liver		Hemangiosarcoma
Lung		Inflammation, Chronic
Lymph node	Mediastinal Lymph Node	Histiocytosis
Nasal cavity		Hyperplasia, Epithelial
		Metaplasia, Squamous
Preputial gland		Abscess, Nos
Seminal vesicle		Inflammation, Necrotizing
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_029

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Heart	Cardiac Valve	Degeneration, Muroid
Kidney		Nephrosis, Nos
Lung	Submucosa	Cyst, Nos
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_030

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Leptomeninges	Perivascular Cuffing
Kidney		Lymphocytic Inflammatory Infiltrate
Liver		Cyst, Multiple
Lung		Alveolar/Bronchiolar Carcinoma
	Submucosa	Cyst, Nos
		Inflammation, Chronic
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Seminal vesicle		Dilatation, Nos
Thyroid		Cyst, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_031

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Heart  
Intestine Small

Cardiac Valve  
Peyers Patch  
Ileum, Ileum  
Glandular Stomach

Degeneration, Muroid  
Hyperplasia, Nos  
Inflammation, Chronic Focal  
Cyst, Nos  
Atrophy, Nos

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_032

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Heart  
Liver  
Lung  
Penis  
Skin

Capsule  
Cardiac Valve  
  
Submucosa  
Prepuce Nos  
Hair Follicle

Hyperplasia, Nos  
Degeneration, Muroid  
Hemangiosarcoma  
Cyst, Nos  
Abscess, Nos  
Atrophy, Nos

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_033

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Lung	Submucosa	Cyst, Nos
Skin	Hair Follicle	Atrophy, Nos
Stomach	Forestomach	Hyperkeratosis
	Forestomach	Hyperplasia, Epithelial
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527

**Test Type:** Long-Term

**Route:** Inhalation

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 1,2-Epoxybutane

**CAS Number:** 106-88-7

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

**Time Report Requested:** 10:39:20

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

**Lab:** NA

**ANIMAL ID:** 2\_034

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 5000 PPM

**DISP:** Terminal Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
	Nasolacrimal Duct	Inflammation, Suppurative
Harderian gland	Hardarian Gland	Papillary Adenoma
Intestine Small	Peyers Patch	Hyperplasia, Nos
Kidney		Lymphocytic Inflammatory Infiltrate
Lung		Alveolar/Bronchiolar Carcinoma
		Histiocytosis
		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Hematopoiesis
	Mesenteric Lymph Node	Hyperplasia, Nos
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_035

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Kidney	Pelvis	Inflammation, Suppurative Lymphocytic Inflammatory Infiltrate
Liver		Hepatocellular Carcinoma
Lung		Hyperplasia, Lymphoid
Nasal cavity		Empyema
Skin	Hair Follicle	Hyperplasia, Epithelial Atrophy, Nos
Thyroid		Follicular-Cell Adenoma
Trachea	Submucosa	Cyst, Nos
Urinary bladder		Calculus, Unknown Gross Or Micro Erosion Inflammation, Nos

PRIMARY CAUSE OF DEATH

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_036

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Brain  
Lung  
Skin

Capsule  
Thalamus  
Hair Follicle

Hyperplasia, Nos  
Mineralization  
Alveolar/Bronchiolar Carcinoma  
Atrophy, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 2\_037

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Eye  
Lung  
Nasal cavity

Capsule  
Nasolacrimal Duct

Hyperplasia, Nos  
Hyperplasia, Epithelial  
Alveolar/Bronchiolar Carcinoma  
Empyema  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Cyst, Nos

Trachea

Submucosa

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**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_038

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Heart  
Larynx  
  
Lung  
Nasal cavity

Capsule  
Cardiac Valve  
Submucosa  
Submucosa  
Submucosa

Hyperplasia, Nos  
Degeneration, Muroid  
Cyst, Nos  
Inflammation, Nos  
Cyst, Nos  
Empyema  
Erosion  
Hyperplasia, Epithelial  
Inflammation, Chronic  
Metaplasia, Squamous  
Regeneration, Nos  
Cyst, Nos

Trachea

Submucosa

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_039

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Capsule	Hyperplasia, Focal Hyperplasia, Nos
Brain	Thalamus	Mineralization
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Heart	Cardiac Valve	Degeneration, Muroid
Kidney		Nephrosis, Nos
Lung	Submucosa	Cyst, Nos Inflammation, Chronic
Nasal cavity		Empyema Hyperplasia, Epithelial Hyperplasia, Nos Inflammation, Chronic Metaplasia, Squamous Regeneration, Nos
Stomach	Glandular Stomach	Cyst, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 2\_041

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

---

**OBSERVATIONS**

Adrenal gland	Cortex Nos Cortex Nos Capsule	Degeneration, Nos Hyperplasia, Focal Hyperplasia, Nos Hepatocellular Adenoma Alveolar/Bronchiolar Carcinoma
Liver		Empyema
Lung		Cyst, Nos
Nasal cavity		
Trachea	Submucosa	

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 2\_042

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium Thalamus	Atrophy, Nos Mineralization
Liver		Hepatocellular Adenoma
Lung	Submucosa	Cyst, Nos
Stomach	Forestomach Submucosa	Hyperkeratosis Inflammation, Chronic
Trachea	Submucosa	Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 2\_043

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

---

**OBSERVATIONS**

Kidney	Tubule	Crystals, Nos
Liver		Hepatocellular Adenoma
Thyroid		Hyperplasia, Follicular Cell
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_044

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Degeneration, Nos

Cortex Nos

Hyperplasia, Focal

Capsule

Hyperplasia, Nos

Lung

Submucosa

Cyst, Nos

Lymph node

Mandibular Lymph Node

Histiocytosis

Nasal cavity

Empyema

Hyperplasia, Epithelial

Inflammation, Chronic

Metaplasia, Squamous

Regeneration, Nos

Trachea

Submucosa

Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_045

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Harderian gland	Harderian Gland	Papillary Adenoma
Kidney	Tubule	Crystals, Nos
Lung	Submucosa	Cyst, Nos
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Skin	Hair Follicle	Atrophy, Nos
Testis		Atrophy, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_046

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium	Atrophy, Nos
	Thalamus	Mineralization
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Liver		Hepatocellular Adenoma
Lung		Inflammation, Chronic
Lymph node	Mesenteric Lymph Node	Edema, Nos
	Mesenteric Lymph Node	Hematopoiesis
	Mesenteric Lymph Node	Hemorrhage
Mammary gland		Dilatation, Ducts
Nasal cavity		Empyema
		Hyperplasia, Epithelial
	Nasal Gland	Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_047

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Bone	Maxilla	Deformity, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Kidney		Hyperplasia, Tubular Cell
Larynx	Submucosa	Cyst, Nos
Nasal cavity		Empyema
	Nasal Gland	Hyperplasia, Epithelial
		Hyperplasia, Nos
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Tooth	Periodontal Tissues	Inflammation, Suppurative

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_049

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Brain	Olfactory Sensory Epithelium	Atrophy, Nos
Eye	Nasolacrimal Duct	Hyperplasia, Epithelial
Lung	Submucosa	Cyst, Nos
Nasal cavity		Empyema
		Hyperplasia, Epithelial
		Inflammation, Chronic
		Metaplasia, Squamous
		Regeneration, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 2\_050

**TRT#:** 2  
**DOSE:** 5000 PPM

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

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**OBSERVATIONS**

Adrenal gland	Cortex Nos Cortex Nos Capsule	Degeneration, Nos Hyperplasia, Focal Hyperplasia, Nos
Kidney		Lymphocytic Inflammatory Infiltrate
Liver		Hematopoiesis
Salivary gland		Lymphocytic Inflammatory Infiltrate
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_001

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Kidney  
Lung  
Urinary bladder

Pyelonephritis, Nos  
Thrombosis, Nos  
Inflammation, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_002

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland	Cortex Nos	Degeneration, Nos
	Cortex Nos	Hyperplasia, Focal
	Capsule	Hyperplasia, Nos
Kidney	Tubule	Degeneration, Hydropic
Lung		Emphysema, Nos
Preputial gland		Cyst, Nos
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_003

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Kidney		Lymphocytic Inflammatory Infiltrate
Liver		Hepatocellular Carcinoma
		Necrosis, Nos
Nasal cavity		Metaplasia, Squamous
Penis	Prepuce Nos	Inflammation, Chronic
Prostate		Inflammation, Suppurative
Stomach	Glandular Stomach	Cyst, Nos
Testis		Atrophy, Nos
Urinary bladder		Erosion
		Hyperplasia, Epithelial
		Inflammation, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_004

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Spleen  
Testis

Capsule

Hyperplasia, Nos  
Hematopoiesis  
Atrophy, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_005

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Brain	Thalamus	Mineralization
Lung		Alveolar/Bronchiolar Carcinoma
Seminal vesicle		Dilatation, Nos
Spleen		Hematopoiesis
Tooth	Pulp Of Tooth	Inflammation, Chronic

---

**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_006

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Heart  
Penis  
Preputial gland

Capsule  
Cardiac Valve  
Prepuce Nos

Hyperplasia, Nos  
Degeneration, Muroid  
Abscess, Nos  
Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_007

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

---

**OBSERVATIONS**

Adrenal gland  
Testis

Capsule

Hyperplasia, Nos  
Atrophy, Nos

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_008

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Natural Death

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

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Degeneration, Nos

Capsule

Hyperplasia, Nos

Heart

Cardiac Valve

Degeneration, Muroid

Kidney

Hemorrhage

Liver

Hepatocellular Carcinoma

Lung

Alveolar/Bronchiolar Carcinoma

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_009

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Trachea

Submucosa

Cyst, Nos

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_010

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Eye

Capsule  
Sclera  
Cornea  
Hardarian Gland

Harderian gland  
Kidney  
Liver  
Lymph node

Hyperplasia, Nos  
Inflammation, Chronic  
Metaplasia, Squamous  
Papillary Adenoma  
Nephrosis, Nos  
Hepatocellular Carcinoma  
Hyperplasia, Nos  
Plasmacytosis  
Cyst, Nos

Trachea

Mandibular Lymph Node  
Submucosa

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_011

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos  
Capsule

Degeneration, Nos

Hyperplasia, Nos

Heart

Thrombosis, Nos

Lung

Emphysema, Nos

Testis

Atrophy, Nos

Trachea

Submucosa

Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_012

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Brain	Thalamus	Mineralization
Kidney		Lymphocytic Inflammatory Infiltrate
		Nephrosis, Nos
Liver		Hepatocellular Carcinoma
		Necrosis, Nos
Lung		Emphysema, Nos
	Bronchiole	Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Hemosiderosis
Trachea	Submucosa	Cyst, Nos
Urinary bladder		Inflammation, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_013

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
	Capsule	Hyperplasia, Nos
Brain	Thalamus	Mineralization
Kidney		Lymphocytic Inflammatory Infiltrate
Lung	Submucosa	Cyst, Nos
Lymph node	Mesenteric Lymph Node	Hemangioma
	Bronchial Lymph Node	Hemosiderosis
	Mesenteric Lymph Node	Histiocytosis
Skin	Hair Follicle	Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_014

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos Capsule	Degeneration, Nos Hyperplasia, Nos
Brain	Thalamus	Mineralization
Liver		Cytoplasmic Change, Eosinophilic Hematopoiesis Hepatocellular Carcinoma
Lung	Submucosa	Cyst, Nos
Skin	Hair Follicle	Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

PRIMARY CAUSE OF DEATH

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_015

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Cerebral Artery Nos	Hyperplasia, Nos
	Cerebral Artery Nos	Necrosis, Fibrinoid
Brain		Periarteritis
Kidney		Lymphocytic Inflammatory Infiltrate
Lung	Submucosa	Cyst, Nos
Lymph node	Mandibular Lymph Node	Hemosiderosis
Testis		Atrophy, Nos
Tooth	Pulp Of Tooth	Necrosis, Nos
Trachea	Submucosa	Cyst, Nos
Unspecified	Mediastinum Nos	Inflammation, Chronic

PRIMARY CAUSE OF DEATH

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_016

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Kidney		Nephrosis, Hydro
Liver		Hepatocellular Carcinoma
Lung		Hepatocellular Carcinoma, Metastatic
		Inflammation, Chronic
Preputial gland		Abscess, Nos
Spleen		Hematopoiesis
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_017

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Coronary Artery Nos	Hyperplasia, Nos
Brain	Thalamus	Mineralization
Heart		Perivasculitis
		Thrombosis, Nos
Lung	Submucosa	Cyst, Nos
		Emphysema, Nos
		Inflammation, Chronic
Lymph node		Hyperplasia, Nos
Skin	Hair Follicle	Atrophy, Nos
Stomach	Forestomach	Hyperkeratosis
	Forestomach	Hyperplasia, Epithelial
	Glandular Stomach	Metaplasia, Squamous
Tooth	Pulp Of Tooth	Inflammation, Chronic
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_018

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Natural Death

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

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**OBSERVATIONS**

Brain	Congestion, Acute Passive
Kidney	Congestion, Acute Passive
Liver	Congestion, Acute Passive
	Hepatocellular Carcinoma
	Necrosis, Nos
Lung	Congestion, Acute Passive
Pituitary gland	Congestion, Acute Passive

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**PRIMARY CAUSE OF DEATH** -

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_019

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Focal
Kidney		Hyperplasia, Tubular Cell
Lung	Submucosa	Cyst, Nos
Skin	Hair Follicle	Atrophy, Nos
Testis		Atrophy, Nos
Tooth	Pulp Of Tooth	Inflammation, Chronic
Trachea	Submucosa	Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_020

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Heart		Inflammation, Chronic
Liver		Hematopoiesis
Lung	Submucosa	Cyst, Nos
		Inflammation, Chronic
Lymph node	Mandibular Lymph Node	Histiocytosis
Tooth	Pulp Of Tooth	Abscess, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_021

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Blood vessel	Aorta Nos	Inflammation, Chronic
Heart	Cardiac Valve	Degeneration, Muroid
Liver		Angiectasis
		Hepatocellular Adenoma
Lung		Inflammation, Chronic
Lymph node		Hyperplasia, Nos
Skin	Hair Follicle	Atrophy, Nos
Testis		Atrophy, Nos

**PRIMARY CAUSE OF DEATH**

-



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_022

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Intestine Small  
Liver  
Spleen  
Thyroid  
Trachea

Ileum, Ileum  
  
  
  
Submucosa

Adenocarcinoma, Nos  
Abscess, Nos  
Hematopoiesis  
C-Cell Carcinoma  
Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527

**Test Type:** Long-Term

**Route:** Inhalation

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 1,2-Epoxybutane

**CAS Number:** 106-88-7

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

**Time Report Requested:** 10:39:20

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

**Lab:** NA

---

**ANIMAL ID:** 3\_023

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Harderian gland

Hardarian Gland

Adenoma, Nos

Skin

Hair Follicle

Atrophy, Nos

Testis

Atrophy, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_024

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Kidney		Hematopoiesis
Liver		Hepatocellular Carcinoma
		Necrosis, Nos
Lung		Alveolar/Bronchiolar Carcinoma
		Emphysema, Nos
Lymph node	Bronchial Lymph Node	Hyperplasia, Nos
Stomach	Glandular Stomach	Cyst, Nos
Trachea	Submucosa	Cyst, Nos
Urinary bladder		Hyperplasia, Epithelial
		Inflammation, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_025

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Harderian gland  
Lung  
Testis

Capsule  
Hardarian Gland

Hyperplasia, Nos  
Adenoma, Nos  
Alveolar/Bronchiolar Carcinoma  
Atrophy, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_026

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

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**OBSERVATIONS**

Brain  
Trachea  
Unspecified

Thalamus  
Submucosa  
Multiple Organs Nos

Mineralization  
Cyst, Nos  
Lymphoma, Histiocytic-Malignant Type

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_027

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Heart	Cardiac Valve	Endocardiosis
Lung		Inflammation, Chronic
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_028

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Lymph node		Plasmacytosis
Skin	Hair Follicle	Atrophy, Nos
Testis		Atrophy, Nos
Tooth	Pulp Of Tooth	Inflammation, Suppurative
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_029

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland	Cortex Nos Capsule	Hyperplasia, Focal Hyperplasia, Nos
Kidney		Lymphocytic Inflammatory Infiltrate
Lung		Alveolar/Bronchiolar Adenoma
Pancreas	Duct Nos	Mineralization
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_030

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

---

**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver		Hepatocellular Adenoma Hepatocellular Carcinoma
Lung		Alveolar/Bronchiolar Adenoma
Testis		Atrophy, Nos
Unspecified	Multiple Organs Nos	Lymphoma, Mixed-Malignant Type

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_031

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

---

**OBSERVATIONS**

Liver		Hepatocellular Adenoma
Lung	Submucosa	Cyst, Nos Emphysema, Nos
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_033

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Lung		Alveolar/Bronchiolar Adenoma Alveolar/Bronchiolar Carcinoma
	Submucosa	Cyst, Nos
Skin	Hair Follicle	Atrophy, Nos
Stomach	Forestomach	Hyperkeratosis
	Forestomach	Hyperplasia, Epithelial
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos
Unspecified	Multiple Organs Nos	Lymphoma, Mixed-Malignant Type

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_034

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Lung	Submucosa	Cyst, Nos
Testis		Atrophy, Nos
Tooth	Pulp Of Tooth	Abscess, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_035

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Heart	Cardiac Valve	Degeneration, Muroid
Lung		Histiocytosis
Thyroid		Follicular-Cell Adenoma
Trachea	Submucosa	Cyst, Nos
Unspecified	Multiple Organs Nos	Lymphoma, Mixed-Malignant Type

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_036

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Heart	Cardiac Valve	Degeneration, Muroid
Lung	Submucosa	Cyst, Nos
Lymph node	Renal Lymph Node	Histiocytosis
Penis	Prepuce Nos	Ulcer, Nos
Skin	Hair Follicle	Atrophy, Nos
Spleen		Hematopoiesis
Testis		Inflammation, Necrotizing
Trachea	Submucosa	Cyst, Nos
Unspecified	Multiple Organs Nos	Angiectasis
		Inflammation, Chronic
	Multiple Organs Nos	Lymphoma, Histiocytic-Malignant Type

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_037

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Larynx	Submucosa	Cyst, Nos
Stomach	Forestomach	Squamous Cell Papilloma
Testis		Atrophy, Nos
Trachea	Submucosa	Cyst, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_038

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Liver		Hepatocellular Adenoma
Lung	Submucosa	Cyst, Nos
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_039

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Kidney		Nephrosis, Nos
Liver		Hepatocellular Carcinoma
Lung		Alveolar/Bronchiolar Adenoma
Lymph node	Mesenteric Lymph Node	Hematopoiesis
	Mesenteric Lymph Node	Hyperplasia, Nos

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

---

**ANIMAL ID:** 3\_040

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Lung  
Preputial gland  
Tooth

Capsule  
  
Pulp Of Tooth

Hyperplasia, Nos  
Alveolar/Bronchiolar Adenoma  
Cyst, Nos  
Inflammation, Chronic

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_041

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Moribund Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Medulla	Congestion, Acute Passive
	Capsule	Hyperplasia, Nos
Brain	Thalamus	Mineralization
Kidney		Nephrosis, Nos
Penis	Prepuce Nos	Inflammation, Acute Focal
	Prepuce Nos	Inflammation, Chronic
Spleen	Follicles	Atrophy, Nos
		Congestion, Acute Passive

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_042

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Brain	Thalamus	Mineralization
Heart	Cardiac Valve	Degeneration, Muroid
Trachea	Submucosa	Cyst, Nos

---

**PRIMARY CAUSE OF DEATH**

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_043

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Natural Death

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

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**OBSERVATIONS**

Adrenal gland	Capsule	Hyperplasia, Nos
Heart	Atrium	Thrombosis, Nos
Kidney		Nephrosis, Nos
Lung		Congestion, Acute Passive
Penis	Prepuce Nos	Inflammation, Chronic
Thymus		Atrophy, Nos
Unspecified		Inflammation, Chronic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_044

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Lung		Inflammation, Chronic
Trachea	Submucosa	Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_045

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Salivary gland

Skin

Testis

Trachea

Hair Follicle

Submucosa

Lymphocytic Inflammatory Infiltrate

Atrophy, Nos

Atrophy, Nos

Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_046

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Brain  
Lymph node

Thalamus

Mineralization  
Hyperplasia, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_047

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Brain  
Heart  
Lung

Capsule  
Thalamus  
Cardiac Valve

Hyperplasia, Nos  
Mineralization  
Degeneration, Muroid  
Alveolar/Bronchiolar Adenoma

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**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

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**ANIMAL ID:** 3\_048

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

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**OBSERVATIONS**

Adrenal gland  
Heart  
Liver  
Lung  
Preputial gland  
Trachea

Capsule  
Cardiac Valve

Hyperplasia, Nos  
Degeneration, Muroid  
Focal Cellular Change  
Alveolar/Bronchiolar Adenoma  
Cyst, Nos  
Hyperplasia, Epithelial

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527  
**Test Type:** Long-Term  
**Route:** Inhalation  
**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 1,2-Epoxybutane  
**CAS Number:** 106-88-7

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 10:39:20  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 3\_049

**TRT#:** 3  
**DOSE:** 0

**SEX:** Male  
**DISP:** Terminal Sacrifice

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

**OBSERVATIONS**

Adrenal gland  
Brain  
Intestine Small  
Kidney  
Liver  
Seminal vesicle

Capsule  
Thalamus  
Ileum, Ileum

Hyperplasia, Nos  
Mineralization  
Fibrosis  
Lymphocytic Inflammatory Infiltrate  
Hepatocellular Carcinoma  
Dilatation, Nos  
Mineralization  
Atrophy, Nos

Skin

Hair Follicle

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C55527

**Test Type:** Long-Term

**Route:** Inhalation

**Species/Strain:** Mouse/B6C3F1

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 1,2-Epoxybutane

**CAS Number:** 106-88-7

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

**Time Report Requested:** 10:39:20

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

**Lab:** NA

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**ANIMAL ID:** 3\_050

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Terminal Sacrifice

**HISTO:**

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**OBSERVATIONS**

Trachea

Submucosa

Cyst, Nos

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**PRIMARY CAUSE OF DEATH**

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**\*\* END OF REPORT \*\***

\* PROTOCOL REQUIRED TISSUE