

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**C Number:** C50533

**Cage Range:** All

**Date Range:** All

**Reasons For Removal:** All

**Removal Date Range:** All

**Treatment Groups:** All

**Study Gender:** Male

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_001

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
Lung		Bronchopneumonia, Acute
		Congestion, Nos
Testis		Hyperplasia, Interstitial Cell

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_002

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart

Kidney

Lung

Lymph node

Stomach

Mandibular Lymph Node

Hemorrhage

Nephropathy

Congestion, Nos

Edema, Nos

Plasmacytosis

Inflammation, Acute

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_003

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization Pheochromocytoma Thrombosis, Nos
Bone marrow		Fibrosis, Myelo
Epididymis		Fibrosis
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic Cytoplasmic Change, Eosinophilic Degeneration, Cystic
Lung	Bile Duct	Hyperplasia, Nos Cholesterol Deposit Histiocytosis
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Cyst, Nos
Testis		Interstitial-Cell Tumor Mineralization
Thyroid		Cyst, Follicular Nos Hyperplasia, C Cell
Unspecified	Chest	Fibroma
	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_004

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Nos
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Bronchopneumonia, Acute
Lymph node	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Inflammation, Acute/Chronic
Pancreas		Acinar-Cell Adenoma
Pituitary gland		Chromophobe Adenoma
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Cyst, Ultimobranchial
Unspecified	Multiple Organs Nos	Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_005

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Lung

Hemorrhage

Mammary gland

Lymphocytic Inflammatory Infiltrate

Thyroid

Hyperplasia, Epithelial

Unspecified

Multiple Organs Nos

Cyst, Ultimobranchial

Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_006

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Congestion, Nos
Eye		Cataract
Heart		Fibrosis
Intestine Small	Jejunum	Ectopia
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Pancreas	Acinus	Cyst, Nos
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Prostate		Hyperplasia, Epithelial
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Mineralization

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_007

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Liver

Nephropathy

Abnormal Curvature

Atypia, Nos

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Lung

Lymph node

Testis

Unspecified

Mandibular Lymph Node

Inflammation, Acute

Hemorrhage

Interstitial-Cell Tumor

Congestion, Nos

Multiple Organs Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_008

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Lymph node

Pancreas

Parathyroid gland

Testis

Thymus

Thyroid

Bile Duct

Mandibular Lymph Node

Acinus

Pheochromocytoma

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Hyperplasia, Nos

Plasmacytosis

Hyperplasia, Nodular

Hyperplasia, Nos

Interstitial-Cell Tumor

Mineralization

Depletion, Lymphoid

C-Cell Carcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_009

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Histiocytosis
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pancreas		Acinar-Cell Adenoma
	Islets	Islet-Cell Adenoma
Parathyroid gland		Hyperplasia, Nos
Prostate		Inflammation, Acute/Chronic
Skin	Back	Keratoacanthoma
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
		Mineralization
Unspecified	Chest	Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_010

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Hemorrhage
Prostate		Inflammation, Acute
Testis		Hyperplasia, Interstitial Cell
Unspecified	Multiple Organs Nos	Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_011

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
		Necrosis, Nos
Lung		Pneumonia, Aspiration
Lymph node	Mediastinal Lymph Node	Hemorrhage
Spleen		Hemosiderosis
Testis		Hyperplasia, Interstitial Cell
Unspecified	Multiple Organs Nos	Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_012

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

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**OBSERVATIONS**

Eye

Substantia Propria

Inflammation, Acute

Lung

Bronchopneumonia, Acute

Unspecified

Multiple Organs Nos

Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_013

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Liver		Inflammation, Acute
Lung		Foreign Material, Nos
Stomach		Inflammation, Acute
Unspecified	Multiple Organs Nos	Congestion, Nos
	Multiple Organs Nos	Hemorrhage

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_014

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Intestine Large  
Lung

Colon

Parasitism  
Edema, Nos  
Lymphocytic Inflammatory Infiltrate

Lymph node

Mandibular Lymph Node

Plasmacytosis  
Cytoplasmic Vacuolization

Pancreas

Unspecified

Multiple Organs Nos

Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_015

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Ear

Inflammation, Acute/Chronic

Unspecified

Multiple Organs Nos

Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_016

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Brain		Edema, Nos
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
		Inflammation, Acute
Lung		Lymphocytic Inflammatory Infiltrate
Pituitary gland		Chromophobe Adenoma
Unspecified	Multiple Organs Nos	Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_017

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic Hyperplasia, Nos
	Bile Duct	Bronchopneumonia, Acute
Lung		Fibroadenoma
Mammary gland		Atrophy, Nos
Pancreas	Acinus	Necrosis, Fat
	Peripancreatic Tissue	Fibrosis
Stomach		Inflammation, Necrotizing
Testis		Interstitial-Cell Tumor Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_018

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Lymph node	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Fibroadenoma
Pancreas	Acinus	Atrophy, Nos
Testis		Interstitial-Cell Tumor
		Mineralization
Thymus		Cyst, Nos
Unspecified	Multiple Organs Nos	Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_019

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Brain

Glioma, Nos

Liver

Cytoplasmic Change, Basophilic

Unspecified

Multiple Organs Nos

Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_020

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Intestine Large

Colon

Parasitism

Lung

Bronchopneumonia, Acute

Spleen

Necrosis, Nos

Thymus

Necrosis, Cortical

Unspecified

Multiple Organs Nos

Congestion, Nos

Multiple Organs Nos

Inflammation, Acute

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_021

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma, Malignant
Heart		Fibrosis
Intestine Small	Jejunum	Hyperplasia, Epithelial
Kidney		Nephropathy
		Pheochromocytoma, Metastatic
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
		Degeneration, Cystic
		Hepatocellular Carcinoma
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
		Lymphocytic Inflammatory Infiltrate
Lymph node	Mediastinal Lymph Node	Plasmacytosis
Pancreas		Acinar-Cell Adenoma
Parathyroid gland		Adenoma, Nos
Pituitary gland		Cyst, Nos
Prostate		Inflammation, Granulomatous
Salivary gland		Atrophy, Nos
Testis		Interstitial-Cell Tumor
		Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 1\_022

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Brain		Pinealoma
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pancreas	Acinus	Atrophy, Nos
Prostate		Metaplasia, Squamous
Salivary gland		Atrophy, Nos
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor
Unspecified	Axilla	Fibrosarcoma

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_023

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

---

**OBSERVATIONS**

Ear		Inflammation, Acute/Chronic
Heart		Inflammation, Chronic
Liver		Abnormal Curvature
	Kupffer Cell	Hyperplasia, Nos
Prostate		Inflammation, Acute
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_024

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Brain		Glioma, Nos Mineralization
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic Cytoplasmic Change, Eosinophilic Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
Penis		Inflammation, Acute
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_025

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Eye	Cornea	Inflammation, Acute
Heart		Fibrosis
Kidney		Nephropathy
Liver		Abnormal Curvature
		Cytoplasmic Change, Basophilic
		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
		Necrosis, Nos
Lung		Bronchopneumonia, Acute
Lymph node	Mandibular Lymph Node	Hemorrhage
Pancreas	Acinus	Atrophy, Nos
	Islets	Islet-Cell Carcinoma
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor
	Tunica Vaginalis	Mesothelioma, Nos
Unspecified	Multiple Organs Nos	Congestion, Nos
	Multiple Organs Nos	Hyperplasia, Epithelial

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_026

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney	Pelvis	Hyperplasia, Epithelial Nephropathy
Liver		Cytoplasmic Change, Basophilic Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Pancreas		Acinar-Cell Adenoma
Skin	Tail	Papilloma, Nos
Testis		Interstitial-Cell Tumor, Malignant
		Mineralization
Unspecified	Chest	Fibroma
	Abdominal Cavity	Interstitial-Cell Tumor, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_027

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Ear		Squamous Cell Carcinoma
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
Lung		Histiocytosis
		Inflammation, Acute
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pancreas		Cyst, Nos
Pituitary gland		Chromophobe Adenoma
		Cyst, Nos
Spleen	Red Pulp	Collapse
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Leg	Neurilemoma, Malignant

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_028

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Acute
Pituitary gland		Cyst, Nos
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Congestion, Nos
	Multiple Organs Nos	Fibrosis

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_029

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Pheochromocytoma

Blood vessel

Pulmonary Artery Nos

Mineralization

Heart

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Hepatocellular Carcinoma

Necrosis, Nos

Lung

Bronchopneumonia, Acute

Pancreas

Acinus

Hyperplasia, Nodular

Testis

Interstitial-Cell Tumor

Mineralization

Unspecified

Abdomen

Fibroma

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_030

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart

Fibrosis

Unspecified

Multiple Organs Nos

Hemorrhage

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_031

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Nos

Heart

Fibrosis

Kidney

Congestion, Nos

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Bile Duct

Hyperplasia, Nos

Lung

Hemorrhage

Pancreas

Acinar-Cell Adenoma

Prostate

Hyperplasia, Epithelial

Salivary gland

Atrophy, Nos

Testis

Interstitial-Cell Tumor

Mineralization

Unspecified

Axilla

Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_032

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Brain		Hemorrhage
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
Lymph node	Mesenteric Lymph Node	Dilatation, Nos
		Edema, Nos
	Mesenteric Lymph Node	Inflammation, Acute
Skin		Hyperkeratosis
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

---

**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_033

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart		Hemorrhage
Lung		Edema, Nos
		Lymphocytic Inflammatory Infiltrate
Lymph node	Mandibular Lymph Node	Plasmacytosis
Nasal cavity	Mucosa	Hemorrhage
Pancreas		Accessory Structure
Stomach		Inflammation, Acute
Testis		Mineralization
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_034

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Pheochromocytoma

Heart

Thrombosis, Nos

Fibrosis

Kidney

Thrombosis, Nos

Liver

Nephropathy

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Degeneration, Cystic

Bile Duct

Hyperplasia, Nos

Necrosis, Nos

Lymph node

Mandibular Lymph Node

Hemorrhage

Pancreas

Acinar-Cell Adenoma

Testis

Interstitial-Cell Tumor

Mesothelioma, Malignant

Unspecified

Fibrosarcoma

Mesothelioma, Invasive

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_035

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Kidney

Liver

Lung

Testis

Unspecified

Bile Duct

Groin

Multiple Organs Nos

Multiple Organs Nos

Nephropathy

Cyst, Nos

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Hyperplasia, Nos

Bronchopneumonia, Acute

Interstitial-Cell Tumor

Mineralization

Fibroma

Hematopoiesis

Mesothelioma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_036

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Fibrosis
Kidney		Nephroblastoma
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
		Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
Lung		Granuloma, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pituitary gland		Chromophobe Adenoma
		Cyst, Nos
Prostate		Inflammation, Chronic
Salivary gland		Atrophy, Nos
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		C-Cell Carcinoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_037

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Brain		Chromophobe Carcinoma, Invasive
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Granuloma, Nos
Lung		Histiocytosis
Lymph node		Plasmacytosis
Mammary gland		Fibroadenoma
		Hyperplasia, Epithelial
		Lactation
Pancreas	Acinus	Atrophy, Nos
Pituitary gland		Chromophobe Adenoma
		Chromophobe Carcinoma
Preputial gland		Adenoma, Nos
Prostate		Hyperplasia, Epithelial
Testis		Atrophy, Nos
		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_038

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Congestion, Nos

Blood vessel

Pulmonary Artery Nos

Hyperplasia, Nos

Heart

Mineralization

Liver

Fibrosis

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Bile Duct

Hyperplasia, Nos

Lung

Histiocytosis

Lymph node

Mediastinal Lymph Node

Hemorrhage

Pancreas

Acinar-Cell Adenoma

Pituitary gland

Hyperplasia, Chromophobe Cell

Prostate

Inflammation, Acute/Chronic

Salivary gland

Atrophy, Nos

Testis

Interstitial-Cell Tumor

Mineralization

Thyroid

Cyst, Follicular Nos

Unspecified

Abdomen

Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_039

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Ear

Inflammation, Acute/Chronic

Heart

Inflammation, Chronic

Lung

Bronchopneumonia, Acute

Unspecified

Multiple Organs Nos

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_040

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Lung		Bronchopneumonia, Acute
		Foreign Material, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Lactation
Stomach		Inflammation, Acute
Thymus		Depletion, Lymphoid
		Hemorrhage
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_041

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

---

**OBSERVATIONS**

Heart

Lung

Unspecified

Multiple Organs Nos

Multiple Organs Nos

Fibrosis

Edema, Nos

Congestion, Nos

Hemorrhage

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_042

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart		Inflammation, Chronic
Kidney		Nephropathy
Lung		Bronchopneumonia, Acute
Lymph node	Mandibular Lymph Node	Hemorrhage
Pancreas		Cyst, Nos
Spleen		Hemosiderosis
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_043

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Intestine Large	Colon	Parasitism
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Neoplastic Nodule
Lymph node	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Lactation
Pancreas	Islets	Islet-Cell Carcinoma
Pituitary gland		Chromophobe Adenoma
		Cyst, Nos
Prostate		Inflammation, Acute
Salivary gland		Fibrosis
Skin		Inflammation, Acute/Chronic
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_044

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Congestion, Nos

Eye

Cytoplasmic Vacuolization

Heart

Cataract

Kidney

Retinopathy

Liver

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Bile Duct

Hyperplasia, Nos

Inflammation, Acute

Necrosis, Nos

Lung

Granuloma, Nos

Lymph node

Mandibular Lymph Node

Plasmacytosis

Pancreas

Acinus

Atrophy, Nos

Prostate

Hyperplasia, Epithelial

Stomach

Inflammation, Acute

Testis

Interstitial-Cell Tumor

Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_045

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Pheochromocytoma

Heart

Fibrosis

Intestine Large

Colon

Parasitism

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Neoplastic Nodule

Lymph node

Mandibular Lymph Node

Plasmacytosis

Pancreas

Acinus

Hyperplasia, Nodular

Pituitary gland

Chromophobe Adenoma

Testis

Interstitial-Cell Tumor

Unspecified

Chest

Fibrosarcoma

Multiple Organs Nos

Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_046

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
Lung		Bronchopneumonia, Acute
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pancreas	Islets	Islet-Cell Adenoma
Salivary gland		Atrophy, Nos
Testis		Interstitial-Cell Tumor
		Mineralization
Thymus		Cyst, Nos
Unspecified	Multiple Organs Nos	Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_047

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel  
Heart  
Kidney  
Liver

Pulmonary Artery Nos

Mineralization  
Fibrosis  
Nephropathy  
Cytoplasmic Change, Basophilic  
Cytoplasmic Change, Eosinophilic  
Degeneration, Cystic

Bile Duct

Hyperplasia, Nos  
Bronchopneumonia, Acute

Lung  
Lymph node  
Pancreas  
Pituitary gland  
Spleen  
Testis

Mediastinal Lymph Node

Hemorrhage  
Hyperplasia, Nodular  
Cyst, Nos  
Congestion, Nos  
Interstitial-Cell Tumor

Acinus

Mineralization

Thymus  
Unspecified

Abdomen

Cyst, Nos  
Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_048

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Ear

Inflammation, Acute/Chronic

Heart

Lymphocytic Inflammatory Infiltrate

Stomach

Inflammation, Acute

Unspecified

Multiple Organs Nos

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 1\_049

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Epididymis  
Heart  
Kidney  
Liver

Lung

Lymph node  
Pancreas  
Testis  
Unspecified

Bile Duct

Mandibular Lymph Node  
Islets

Multiple Organs Nos  
Axilla

Hematopoiesis  
Inflammation, Acute/Chronic  
Fibrosis  
Nephropathy  
Cytoplasmic Change, Basophilic  
Cytoplasmic Change, Eosinophilic  
Hyperplasia, Nos  
Bronchopneumonia, Acute  
Histiocytosis  
Plasmacytosis  
Hyperplasia, Nos  
Interstitial-Cell Tumor  
Congestion, Nos  
Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 1\_050

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 060.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Lymph node

Mandibular Lymph Node

Inflammation, Acute

Pituitary gland

Hyperplasia, Chromophobe Cell

Salivary gland

Inflammation, Acute/Chronic

Skin

Cheek

Squamous Cell Carcinoma

Testis

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_001

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart

Kidney

Lung

Spleen

Testis

Unspecified

Multiple Organs Nos

Fibrosis

Nephropathy

Bronchopneumonia, Acute

Depletion, Lymphoid

Hemosiderosis

Interstitial-Cell Tumor

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_002

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart		Hemorrhage
Lung		Edema, Nos
Unspecified	Multiple Organs Nos	Congestion, Nos
	Multiple Organs Nos	Lymphocytic Inflammatory Infiltrate

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_003

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Fibrosis
Kidney	Nephropathy
Liver	Cytoplasmic Change, Basophilic
Lung	Osteosarcoma, Metastatic
Pancreas	Cyst, Nos
Spleen	Hemosiderosis
Testis	Interstitial-Cell Tumor
	Mineralization
Thyroid	Hyperplasia, C Cell
Unspecified	Osteosarcoma

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_004

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Bronchopneumonia, Chronic
Pancreas		Acinar-Cell Adenoma
Pituitary gland		Hyperplasia, Chromophobe Cell
Prostate		Inflammation, Acute/Chronic
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
Thyroid		Cyst, Follicular Nos
Trachea		Inflammation, Acute

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_005

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney  
Liver

Medulla

Hyperplasia, Nos  
Fibrosis  
Nephropathy  
Cytoplasmic Change, Basophilic  
Cytoplasmic Change, Eosinophilic

Bile Duct

Hyperplasia, Nos  
Pneumonia, Chronic Murine

Lung  
Lymph node  
Pituitary gland  
Prostate  
Testis

Mediastinal Lymph Node

Hemorrhage  
Chromophobe Adenoma  
Inflammation, Acute  
Interstitial-Cell Tumor

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_006

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Liver

Lung

Testis

Cytoplasmic Vacuolization

Inflammation, Acute/Chronic

Cytoplasmic Change, Basophilic

Edema, Nos

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_007

**TRT#:** 2  
**DOSE:** 030.0 MG/KG

**SEX:** Male  
**DISP:** Scheduled Sacrifice

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

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Bone marrow		Fibrosis, Myelo
Heart		Fibrosis
Kidney		Mineralization
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
		Neoplastic Nodule
Lung		Histiocytosis
Lymph node	Mandibular Lymph Node	Plasmacytosis
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
Thyroid		Mineralization

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_008

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart

Kidney

Liver

Lung

Unspecified

Multiple Organs Nos

Fibrosis

Nephropathy

Necrosis, Nos

Edema, Nos

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_009

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
		Pigmentation, Nos
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
		Necrosis, Nos
Lung		Histiocytosis
Testis		Interstitial-Cell Tumor
		Mineralization
Thymus		Depletion, Lymphoid
Unspecified	Multiple Organs Nos	Mesothelioma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_010

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart		Fibrosis
Intestine Large	Colon	Parasitism
Intestine Small	Mesentery Nos	Inflammation, Calc Granulomatous
	Mesentery Nos	Lipoma
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Pancreas		Acinar-Cell Adenoma
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_011

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization Inflammation, Acute Pheochromocytoma
Heart		Fibrosis
Intestine Small	Mesentery Nos	Myxosarcoma
Kidney		Congestion, Nos Nephropathy
Liver		Cytoplasmic Change, Basophilic Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Dilatation, Ducts
Pancreas	Acinus	Atrophy, Nos
Pituitary gland		Chromophobe Adenoma
Prostate		Hyperplasia, Epithelial
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_012

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart		Fibrosis
Lung		Bronchopneumonia, Acute
Pancreas	Acinus	Atrophy, Exhaustion
Thymus		Hemorrhage
Trachea		Inflammation, Acute
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_013

**TRT#:** 2  
**DOSE:** 030.0 MG/KG

**SEX:** Male  
**DISP:** Scheduled Sacrifice

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

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Plasmacytosis
Parathyroid gland		Hyperplasia, Nos
Prostate		Inflammation, Acute
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
		Mesothelioma, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_014

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

---

**OBSERVATIONS**

Heart

Inflammation, Chronic

Lung

Edema, Nos

Unspecified

Multiple Organs Nos

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_015

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_016

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

---

**OBSERVATIONS**

Liver

Abnormal Curvature

Lung

Edema, Nos

Foreign Material, Nos

Lymphocytic Inflammatory Infiltrate

Unspecified

Multiple Organs Nos

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_017

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Bile Duct

Lung

Testis

Unspecified

Multiple Organs Nos

Angiectasis

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Hyperplasia, Nos

Inflammation, Acute

Interstitial-Cell Tumor

Mineralization

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_018

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
		Hemangiosarcoma
	Bile Duct	Hyperplasia, Nos
Pancreas	Islets	Hyperplasia, Nos
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Cyst, Ultimobranchial
Unspecified	Multiple Organs Nos	Hemangiosarcoma, Invasive
	Multiple Organs Nos	Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_019

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Cytoplasmic Vacuolization
Bone marrow		Fibrosis, Myelo
Brain		Hemorrhage
Heart		Fibrosis
		Thrombosis, Nos
Kidney		Nephropathy
		Pigmentation, Nos
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
		Degeneration, Cystic
	Bile Duct	Hyperplasia, Nos
		Neoplastic Nodule
Lung		Histiocytosis
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pancreas	Acinus	Atrophy, Nos
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 2\_020

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

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**OBSERVATIONS**

Kidney

Liver

Lung

Prostate

Unspecified

Bile Duct

Multiple Organs Nos

Nephropathy

Hyperplasia, Nos

Edema, Nos

Inflammation, Acute/Chronic

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_021

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Ear	Inflammation, Acute/Chronic
Heart	Inflammation, Acute/Chronic
Kidney	Nephropathy
Lung	Bronchopneumonia, Acute
Pituitary gland	Cyst, Nos
Spleen	Hemosiderosis
Trachea	Inflammation, Acute/Chronic
Unspecified	Multiple Organs Nos Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_022

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Heart		Fibrosis
Intestine Small	Jejunum	Ectopia
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
Lymph node	Mandibular Lymph Node	Cyst, Nos
	Renal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Plasmacytosis
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_023

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Esophagus		Inflammation, Chronic
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Plasmacytosis
Pituitary gland		Cyst, Nos
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_024

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
Lung		Edema, Nos
		Histiocytosis
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pancreas	Acinus	Atrophy, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Testis		Interstitial-Cell Tumor
Thyroid		C-Cell Carcinoma
Unspecified	Multiple Organs Nos	Congestion, Nos
	Chest	Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 2\_025

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart		Neurofibroma
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Pituitary gland		Cyst, Nos
Prostate		Inflammation, Acute/Chronic
Salivary gland		Atrophy, Nos
Stomach		Hyperplasia, Epithelial
		Inflammation, Acute
Testis		Interstitial-Cell Tumor
		Mineralization

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_026

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Nodular
Epididymis		Inflammation, Acute/Chronic
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
Lung		Inflammation, Acute
Lymph node	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Lactation
Pancreas	Acinus	Atrophy, Nos
Parathyroid gland		Hyperplasia, Nos
Prostate		Inflammation, Acute
Spleen		Hematopoiesis
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Abdomen	Fibrosarcoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_027

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Nodular Pheochromocytoma
Heart		Fibrosis
Kidney		Fibrosarcoma, Metastatic Nephropathy
Liver		Cytoplasmic Change, Basophilic Cytoplasmic Change, Eosinophilic Granuloma, Nos
Lymph node	Mediastinal Lymph Node Mandibular Lymph Node	Hemorrhage Plasmacytosis
Mammary gland		Dilatation, Ducts
Pancreas		Acinar-Cell Adenoma
Parathyroid gland		Hyperplasia, Nos
Prostate		Fibrosis
Testis		Interstitial-Cell Tumor
Thyroid		Cyst, Follicular Nos
Unspecified	Back Chest	Fibrosarcoma Fibrosarcoma, Invasive

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_028

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Inflammation, Acute/Chronic
Prostate		Inflammation, Chronic
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_029

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Congestion, Nos
Heart		Fibrosis
Intestine Large	Rectum	Polyp, Inflammatory
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Lymphocytic Inflammatory Infiltrate
Lymph node	Mandibular Lymph Node	Plasmacytosis
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
Thyroid		C-Cell Adenoma
Urinary bladder		Lymphocytic Inflammatory Infiltrate

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 2\_030

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart		Inflammation, Chronic
Lung		Edema, Nos
Lymph node	Mandibular Lymph Node	Hemorrhage
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 2\_031

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

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**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Larynx		Hemorrhage
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
Lung		Histiocytosis
Lymph node	Mandibular Lymph Node	Plasmacytosis
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 2\_032

**TRT#:** 2  
**DOSE:** 030.0 MG/KG

**SEX:** Male  
**DISP:** Scheduled Sacrifice

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

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Nodular
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Dilatation, Nos
	Mandibular Lymph Node	Plasmacytosis
Parathyroid gland		Hyperplasia, Nos
Spleen	Capsule	Lymphocytic Inflammatory Infiltrate
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
		Mineralization
Thymus		Hemorrhage

**PRIMARY CAUSE OF DEATH**

-

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_033

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Nodular
Epididymis		Inflammation, Acute/Chronic
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Bronchopneumonia, Acute
		Hemorrhage
		Hyperplasia, Alveolar Epithelium
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Plasmacytosis
Pancreas	Acinus	Atrophy, Nos
Parathyroid gland		Hyperplasia, Nos
Prostate		Inflammation, Acute/Chronic
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
		Mesothelioma, Nos
		Mineralization
Thyroid		C-Cell Carcinoma
		Cyst, Follicular Nos
Unspecified	Chest	Fibroadenoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_034

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Epididymis  
Heart  
Kidney  
Liver

Medulla

Hyperplasia, Nos  
Inflammation, Chronic  
Fibrosis  
Nephropathy  
Congestion, Nos  
Cytoplasmic Change, Basophilic  
Cytoplasmic Change, Eosinophilic

Bile Duct

Hyperplasia, Nos  
Granuloma, Nos

Lung  
Lymph node  
Pituitary gland  
Preputial gland  
Prostate  
Testis

Mandibular Lymph Node

Plasmacytosis  
Angiectasis  
Cyst, Epidermal Inclusion  
Inflammation, Acute/Chronic  
Interstitial-Cell Tumor  
Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 2\_035

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Accidentally Killed

**HISTO:**

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**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
Lung		Bronchopneumonia, Acute
Pituitary gland		Chromophobe Adenoma
Testis		Interstitial-Cell Tumor
Trachea		Inflammation, Acute
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 2\_036

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney		Nephropathy
Liver		Cytoplasmic Change, Eosinophilic Hyperplasia, Nos
	Bile Duct	
Lung	Bronchus	Bronchiectasis
Pituitary gland		Cyst, Nos
Prostate		Inflammation, Acute
Spleen		Hemosiderosis
Testis		Atypia, Nos
		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_037

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Kidney

Nephropathy

Liver

Inflammation, Acute

Unspecified

Multiple Organs Nos

Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_038

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Nodular
Brain	Choroid Plexus Nos	Mineralization
Heart		Fibrosis
Kidney		Nephropathy
Larynx		Cyst, Ultimobranchial
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Pancreas	Acinus	Atrophy, Nos
Pituitary gland		Chromophobe Adenoma
Salivary gland	Submaxillary Gland Nos	Sarcoma, Nos
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_039

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Hyperplasia, Nodular

Medulla

Hyperplasia, Nos

Heart

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Hepatocellular Carcinoma

Bile Duct

Hyperplasia, Nos

Lung

Lymphocytic Inflammatory Infiltrate

Lymph node

Hemorrhage

Pancreas

Mediastinal Lymph Node

Plasmacytosis

Prostate

Mandibular Lymph Node

Hyperplasia, Nodular

Testis

Acinus

Hyperplasia, Epithelial

Interstitial-Cell Tumor

Thyroid

Mineralization

Cyst, Follicular Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_040

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Lung		Edema, Nos
Nasal cavity	Mucosa	Lymphocytic Inflammatory Infiltrate
Thymus		Hemorrhage
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_041

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Brain		Edema, Nos
Kidney		Nephropathy
Liver	Bile Duct	Hyperplasia, Nos
		Inflammation, Acute
Skin	Eyelid Nos	Hemorrhage
Spleen		Hemosiderosis
Testis		Hyperplasia, Interstitial Cell
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_042

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Ear

Inflammation, Acute/Chronic

Heart

Fibrosis

Lung

Edema, Nos

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_043

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Kidney

Liver

Bile Duct

Lung

Lymph node

Parathyroid gland

Spleen

Stomach

Testis

Mandibular Lymph Node

Hematopoiesis

Nephropathy

Atypia, Nos

Cytoplasmic Change, Eosinophilic

Hyperplasia, Nos

Necrosis, Nos

Histiocytosis

Plasmacytosis

Hyperplasia, Nos

Hematopoiesis

Ulcer, Acute

Atrophy, Nos

Interstitial-Cell Tumor

Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_044

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Liver

Bile Duct

Mammary gland

Parathyroid gland

Prostate

Stomach

Testis

Pheochromocytoma

Fibrosis

Nephropathy

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Hyperplasia, Nos

Fibroadenoma

Hyperplasia, Nos

Inflammation, Acute

Inflammation, Acute

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_045

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Epididymis

Heart

Liver

Lymph node

Parathyroid gland

Testis

Thyroid

Unspecified

Bile Duct

Mandibular Lymph Node

Multiple Organs Nos

Pheochromocytoma

Inflammation, Acute/Chronic

Fibrosis

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Hyperplasia, Nos

Plasmacytosis

Hyperplasia, Nos

Interstitial-Cell Tumor

Mineralization

C-Cell Adenoma

Congestion, Nos

Fibrosarcoma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_046

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart		Lymphocytic Inflammatory Infiltrate
Lung		Edema, Nos
		Foreign Material, Nos
		Lymphocytic Inflammatory Infiltrate
Lymph node	Mandibular Lymph Node	Plasmacytosis
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 2\_047

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart		Lymphocytic Inflammatory Infiltrate
Lung		Edema, Nos
		Lymphocytic Inflammatory Infiltrate
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_048

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Nodular
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
		Mineralization
Pancreas	Acinus	Hyperplasia, Nodular
Salivary gland		Atrophy, Nos
Stomach		Inflammation, Acute
Testis		Granuloma, Nos
		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Chest	Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 2\_049

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart		Hemorrhage
		Lymphocytic Inflammatory Infiltrate
Lung		Lymphocytic Inflammatory Infiltrate
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 2\_050

**TRT#:** 2

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 030.0 MG/KG

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Bone marrow

Hyperplasia, Nodular

Heart

Fibrosis, Myelo

Kidney

Fibrosis

Liver

Nephropathy

Lung

Bile Duct

Cytoplasmic Change, Basophilic

Testis

Hyperplasia, Nos

Bronchopneumonia, Acute

Unspecified

Interstitial-Cell Tumor

Mineralization

Fibroma

Multiple Organs Nos

Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 3\_001

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart

Myocardium Nos

Inflammation, Chronic

Kidney

Inflammation, Chronic

Testis

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_002

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_003

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Fibrosis
Lung		Alveolar/Bronchiolar Adenoma
		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_004

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_005

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Lymph node

Testis

Thyroid

Mandibular Lymph Node

Inflammation, Chronic

Plasmacytosis

Interstitial-Cell Tumor

Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_006

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_007

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Pancreas		Inflammation, Acute Focal
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_008

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Epididymis		Necrosis, Fat
Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Seminal vesicle		Inflammation, Acute
Stomach	Omentum Nos	Necrosis, Fat
Testis	Scrotum Nos	Fibroma
		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_009

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Necrosis, Fat
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Pancreas		Atrophy, Focal
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_010

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_011

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Skin	Ear	Fibrosarcoma
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_012

**TRT#:** 3

**DOSE:** 0

**SEX:** Male

**DISP:** Scheduled Sacrifice

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Kidney

Lung

Testis

Inflammation, Chronic

Pneumonia, Chronic Murine

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_013

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_014

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Liver	Bile Duct	Hyperplasia, Nos
Lung		Pneumonia, Chronic Murine
Pituitary gland		Hyperplasia, Nodular
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_015

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Rectum	Adenomatous Polyp, Nos
Lung		Hyperplasia, Alveolar Epithelium
		Pneumonia, Chronic Murine
Pancreas		Atrophy, Focal
Salivary gland		Calcification, Nos
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_016

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Liver		Necrosis, Focal
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_017

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_018

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Brain		Atrophy, Pressure
Heart	Myocardium Nos	Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Lymph node	Mandibular Lymph Node	Plasma-Cell Tumor
Pituitary gland		Adenoma, Nos
Testis		Hyperplasia, Interstitial Cell
		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_019

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Kidney

Lung

Pancreas

Testis

Myocardium Nos

Islets

Cortical Adenoma

Inflammation, Chronic

Inflammation, Chronic

Pneumonia, Chronic Murine

Atrophy, Focal

Islet-Cell Carcinoma

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_020

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_021

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_022

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Pneumonia, Chronic Murine

Mammary gland

Lactation

Pancreas

Islets

Hyperplasia, Nos

Pituitary gland

Adenoma, Nos

Testis

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_023

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney

Inflammation, Chronic

Lung

Pneumonia, Chronic Murine

Testis

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_024

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_025

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_026

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Hyperplasia, Focal

Heart

Myocardium Nos

Inflammation, Chronic

Kidney

Inflammation, Chronic

Testis

Interstitial-Cell Tumor

Thyroid

Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_027

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart

Myocardium Nos

Inflammation, Chronic

Kidney

Inflammation, Chronic

Testis

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_028

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Pancreas	Islets	Hyperplasia, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_029

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Liver		Granuloma, Nos
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_030

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Mammary gland		Lactation
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_031

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Liver		Granuloma, Nos
Pancreas	Islets	Islet-Cell Adenoma
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_032

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Heart

Myocardium Nos

Degeneration, Lipoid

Inflammation, Chronic

Periarteritis

Kidney

Testis

Inflammation, Chronic

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_033

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Cyst, Nos
		Inflammation, Chronic
Liver		Neoplastic Nodule
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Myelomonocytic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_034

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Kidney  
Preputial gland  
Testis

Inflammation, Chronic  
Carcinoma, Nos  
Atrophy, Nos  
Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_035

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Aspiration
		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_036

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Liver		Focal Cellular Change
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_037

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart

Myocardium Nos

Inflammation, Chronic

Testis

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_038

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Liver	Bile Duct	Hyperplasia, Nos
Lung		Pneumonia, Chronic Murine
Pancreas	Islets	Hyperplasia, Nos
Prostate		Granuloma, Spermatic
		Inflammation, Acute/Chronic
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_039

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Small	Mesentery Nos	Necrosis, Fat
Kidney		Inflammation, Chronic
Lung		Alveolar/Bronchiolar Adenoma
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_040

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Pancreas		Atrophy, Nos
Pituitary gland		Adenoma, Nos
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_041

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Pancreas		Atrophy, Nos
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_042

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Pituitary gland		Adenoma, Nos
Prostate		Inflammation, Acute/Chronic

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_043

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Focal

Heart

Myocardium Nos

Inflammation, Chronic

Kidney

Inflammation, Chronic

Liver

Bile Duct

Hyperplasia, Nos

Lung

Pneumonia, Chronic Murine

Prostate

Inflammation, Acute/Chronic

Testis

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_044

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Intestine Large	Colon	Parasitism
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Prostate		Inflammation, Acute/Chronic
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_045

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_046

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_047

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_048

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Pituitary gland		Adenoma, Nos
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_049

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Liver		Inflammation, Focal
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 3\_050

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart	Myocardium Nos	Inflammation, Chronic
Kidney		Inflammation, Chronic
Lung		Pneumonia, Chronic Murine
Prostate		Inflammation, Acute/Chronic
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_001

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Hematopoiesis

Blood vessel

Pulmonary Artery Nos

Hyperplasia, Nos

Heart

Mineralization

Kidney

Fibrosis

Liver

Nephropathy

Bile Duct

Cytoplasmic Change, Basophilic

Lung

Hyperplasia, Nos

Parathyroid gland

Granuloma, Nos

Preputial gland

Hyperplasia, Nos

Prostate

Adenoma, Nos

Stomach

Inflammation, Acute/Chronic

Testis

Inflammation, Acute

Interstitial-Cell Tumor

Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_002

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Angiectasis
Heart		Fibrosis
		Lymphocytic Inflammatory Infiltrate
Kidney		Inflammation, Acute/Chronic
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Hemorrhage
		Mineralization
Lymph node	Mandibular Lymph Node	Edema, Nos
	Mediastinal Lymph Node	Hemorrhage
Pituitary gland		Hyperplasia, Chromophobe Cell
Spleen	Red Pulp	Collapse
		Hemosiderosis
Stomach		Hyperplasia, Epithelial
		Inflammation, Acute
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_003

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Brain

Medulla

Hyperplasia, Nos  
Angiectasis  
Thrombosis, Nos

Heart  
Intestine Small  
Kidney  
Liver

Jejunum

Fibrosis  
Ectopia  
Nephropathy  
Cytoplasmic Change, Basophilic

Lung  
Lymph node  
Parathyroid gland  
Prostate  
Testis

Bile Duct

Hyperplasia, Nos  
Alveolar/Bronchiolar Adenoma

Thymus  
Thyroid

Mediastinal Lymph Node

Hemorrhage  
Hyperplasia, Nos  
Inflammation, Granulomatous  
Atrophy, Nos  
Inflammation, Granulomatous  
Interstitial-Cell Tumor  
Cyst, Nos  
Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_004

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos Cortex Nos	Cytoplasmic Change, Nos Hyperplasia, Nodular Pheochromocytoma
Bone marrow		Fibrosis, Myelo
Heart		Fibrosis
Kidney		Congestion, Nos Nephropathy
Liver		Cytoplasmic Change, Basophilic Cytoplasmic Change, Eosinophilic
Lung	Bile Duct	Hyperplasia, Nos Histiocytosis Inflammation, Acute
Lymph node	Mediastinal Lymph Node	Hemorrhage
Parathyroid gland		Hyperplasia, Nos
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor Mineralization
Unspecified	Abdomen	Basal-Cell Tumor
Urinary bladder		Edema, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_005

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Angiectasis
		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
		Necrosis, Nos
Lung		Histiocytosis
		Lymphocytic Inflammatory Infiltrate
Mammary gland		Hyperplasia, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_006

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel  
Heart  
Kidney  
Liver

Pulmonary Artery Nos

Mineralization  
Fibrosis  
Nephropathy  
Cytoplasmic Change, Basophilic  
Cytoplasmic Change, Eosinophilic

Bile Duct

Hyperplasia, Nos  
Congestion, Nos  
Cyst, Nos  
Hyperplasia, Epithelial  
Inflammation, Acute  
Interstitial-Cell Tumor  
Mineralization  
Hyperplasia, C Cell

Lung  
Pituitary gland  
Prostate  
Stomach  
Testis

Thyroid

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 4\_007

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Brain		Gliosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Pancreas	Acinus	Atrophy, Nos
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Monocytic
	Ear	Sarcoma, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_008

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis, Focal Mineralization
Kidney		Mineralization Nephropathy Nephrosis, Hydro
Liver	Bile Duct	Cytoplasmic Change, Basophilic Hyperplasia, Nos Neoplastic Nodule
Pancreas	Acinus	Atrophy, Nos Hyperplasia, Nos
Parathyroid gland		Inflammation, Acute/Chronic
Seminal vesicle		Keratoacanthoma
Skin	Ear	Mineralization
Stomach		Interstitial-Cell Tumor
Testis		Ulcer, Acute Hemorrhagic
Urinary bladder		

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 4\_009

**TRT#:** 4

**DOSE:** 0

**SEX:** Male

**DISP:** Accidentally Killed

**DAY ON TEST:**

**HISTO:**

---

**OBSERVATIONS**

Adrenal gland

Cortical Carcinoma

Heart

Ganglioneuroma

Kidney

Fibrosis

Liver

Nephropathy

Lung

Nephrosis, Hydro

Testis

Cytoplasmic Change, Basophilic

Edema, Nos

Hemorrhage

Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_010

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Bone	Cartilage,Nos	Lipoma
Brain		Hemorrhage
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Pancreas	Acinus	Atrophy, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Prostate		Inflammation, Acute/Chronic
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_011

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Medulla

Hyperplasia, Nos

Heart

Fibrosis

Intestine Large

Parasitism

Intestine Small

Colon

Hematoma, Nos

Kidney

Mesentery Nos

Nephropathy

Liver

Pigmentation, Nos

Mammary gland

Atypia, Nos

Testis

Dilatation, Ducts

Atrophy, Nos

Interstitial-Cell Tumor

Unspecified

Multiple Organs Nos

Mineralization

Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_012

**TRT#:** 4  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Heart		Fibrosis
		Thrombosis, Nos
Kidney		Nephropathy
Liver		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
		Necrosis, Nos
Lung		Histiocytosis
Pituitary gland		Cyst, Nos
Spleen	Capsule	Siderophagocytosis
Stomach		Mesothelioma, Metastatic
		Siderophagocytosis
Testis		Interstitial-Cell Tumor
		Mesothelioma, Malignant
		Mineralization
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_013

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pancreas	Acinus	Atrophy, Nos
Pituitary gland		Adenoma, Nos
		Cyst, Nos
Testis		Interstitial-Cell Tumor
Unspecified	Chest	Fibroma

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_014

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Intestine Small	Mesentery Nos	Necrosis, Fat
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Plasmacytosis
Salivary gland		Atrophy, Nos
Skin	Head	Cyst, Epidermal Inclusion
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Congestion, Nos
	Multiple Organs Nos	Hematopoiesis
	Multiple Organs Nos	Inflammation, Acute

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 4\_015

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart

Fibrosis

Liver

Necrosis, Central

Unspecified

Multiple Organs Nos

Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

---

**ANIMAL ID:** 4\_016

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
		Neoplastic Nodule
Lung		Histiocytosis
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Preputial gland		Adenoma, Nos
Testis		Interstitial-Cell Tumor

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_017

**TRT#:** 4  
**DOSE:** 0

**SEX:** Male  
**DISP:** Scheduled Sacrifice

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

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Heart		Fibrosis
Kidney		Inflammation, Chronic
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
	Mandibular Lymph Node	Plasmacytosis
Lymph node		Hyperplasia, Nos
Parathyroid gland		Inflammation, Acute
Prostate		Interstitial-Cell Tumor
Testis		Cyst, Follicular Nos
Thyroid		Congestion, Nos
Unspecified	Multiple Organs Nos	Hemorrhage
	Multiple Organs Nos	Thymoma, Benign
	Mediastinum Nos	

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_018

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Neoplastic Nodule
Lymph node	Mandibular Lymph Node	Plasmacytosis
Prostate		Inflammation, Chronic
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
		Mineralization
Thymus		Cyst, Nos
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_019

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Medulla	Hyperplasia, Nos
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Hemorrhage
Lymph node	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Fibroadenoma
		Hyperplasia, Nos
Pituitary gland		Cyst, Nos
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified		Inflammation, Granulomatous Focal
	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_020

**TRT#:** 4  
**DOSE:** 0

**SEX:** Male  
**DISP:** Scheduled Sacrifice

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

**OBSERVATIONS**

Heart		Fibrosis Mineralization
Kidney		Thrombosis, Nos Nephropathy
Liver		Cytoplasmic Change, Basophilic Hyperplasia, Nos Neoplastic Nodule
	Bile Duct	Bronchopneumonia, Acute Histiocytosis Lymphocytic Inflammatory Infiltrate
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pancreas	Acinus Islets	Atrophy, Nos Islet-Cell Adenoma
Pituitary gland		Hyperplasia, Chromophobe Cell
Preputial gland		Adenoma, Nos
Testis		Interstitial-Cell Tumor Mineralization
Unspecified	Chest Multiple Organs Nos	Fibroma Hematopoiesis

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C50533

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 2,4- & 2,6-Toluene diisocyanate

CAS Number: 26471-62-5

Date Report Requested: 10/26/2014

Time Report Requested: 17:23:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 4\_021

TRT#: 4

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Cytoplasmic Vacuolization
Eye		Cataract
		Retinopathy
Heart		Fibrosis
Kidney		Congestion, Nos
		Nephropathy
Larynx	Laryngeal Gland	Dilatation, Nos
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lung		Alveolar/Bronchiolar Carcinoma
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Fibroadenoma
Pancreas	Islets	Hyperplasia, Nos
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
Thymus		Alveolar/Bronchiolar Carcinoma, Invasive
Unspecified	Mediastinum Nos	Alveolar/Bronchiolar Carcinoma, Invasive

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_022

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Congestion, Nos
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Lymph node	Mediastinal Lymph Node	Plasmacytosis
Mammary gland		Fibroadenoma
Pancreas		Atrophy, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Prostate		Inflammation, Chronic
Skin	Nose	Squamous Cell Papilloma
Testis		Interstitial-Cell Tumor
		Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_023

**TRT#:** 4  
**DOSE:** 0

**SEX:** Male  
**DISP:** Scheduled Sacrifice

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

**OBSERVATIONS**

Eye		Cataract
		Retinopathy
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pancreas	Acinus	Atrophy, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Skin	Back	Trichoepithelioma
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
Thyroid		Mineralization

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_024

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Medulla

Cytoplasmic Vacuolization

Bone marrow

Eye

Hyperplasia, Nos

Fibrosis, Myelo

Cataract

Retinopathy

Heart

Intestine Small

Kidney

Liver

Jejunum

Fibrosis

Inflammation, Granulomatous

Nephropathy

Atypia, Nos

Cytoplasmic Change, Eosinophilic

Bile Duct

Hyperplasia, Nos

Neoplastic Nodule

Lymph node

Pituitary gland

Testis

Mandibular Lymph Node

Plasmacytosis

Cyst, Nos

Interstitial-Cell Tumor

Unspecified

Multiple Organs Nos

Mineralization

Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_025

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Pheochromocytoma

Heart

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Cytoplasmic Change, Eosinophilic

Bile Duct

Hyperplasia, Nos

Lung

Edema, Nos

Preputial gland

Adenoma, Nos

Spleen

Hematopoiesis

Testis

Interstitial-Cell Tumor

Unspecified

Adenocarcinoma, Nos

Multiple Organs Nos

Adenocarcinoma, Nos, Metastatic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 4\_026

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

---

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Glomerulonephritis, Nos
		Pigmentation, Nos
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Necrosis, Nos
Parathyroid gland		Hyperplasia, Nos
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

Experiment Number: C50533

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 2,4- & 2,6-Toluene diisocyanate

CAS Number: 26471-62-5

Date Report Requested: 10/26/2014

Time Report Requested: 17:23:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 4\_027

TRT#: 4

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland  
Heart  
Kidney

Hematopoiesis  
Fibrosis  
Adenocarcinoma, Nos  
Congestion, Nos  
Nephropathy

Liver

Bile Duct

Cytoplasmic Change, Basophilic  
Hyperplasia, Nos  
Necrosis, Nos  
Neoplastic Nodule

Lung

Inflammation, Granulomatous  
Mineralization

Lymph node

Mandibular Lymph Node

Plasmacytosis

Pancreas  
Parathyroid gland  
Pituitary gland  
Preputial gland

Atrophy, Nos  
Hyperplasia, Nos  
Chromophobe Adenoma  
Adenoma, Nos

Prostate

Inflammation, Chronic

Stomach

Hyperplasia, Epithelial

Testis

Inflammation, Acute

Thyroid

Interstitial-Cell Tumor

Unspecified

Multiple Organs Nos

Hyperplasia, C Cell

Leukemia, Monocytic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 4\_028

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

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**OBSERVATIONS**

Kidney

Liver

Lung

Pituitary gland

Testis

Unspecified

Bile Duct

Multiple Organs Nos

Nephropathy

Abnormal Curvature

Cytoplasmic Change, Basophilic

Hyperplasia, Nos

Congestion, Nos

Hyperplasia, Chromophobe Cell

Interstitial-Cell Tumor

Inflammation, Acute/Chronic

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_029

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Epididymis  
Eye

Cortex Nos

Hyperplasia, Nodular  
Inflammation, Chronic  
Cataract  
Retinopathy

Heart  
Intestine Small  
Kidney  
Liver

Mesentery Nos

Fibrosis  
Lipoma  
Nephropathy  
Cytoplasmic Change, Basophilic  
Cytoplasmic Change, Eosinophilic

Lung  
Pituitary gland  
Testis  
Urinary bladder

Bile Duct

Hyperplasia, Nos  
Hemorrhage  
Hyperplasia, Chromophobe Cell  
Interstitial-Cell Tumor  
Lymphocytic Inflammatory Infiltrate

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_030

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Epididymis		Fibrosis
Eye	Sclera	Mineralization
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
		Necrosis, Nos
Lung		Histiocytosis
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Plasmacytosis
Preputial gland		Adenoma, Nos
Spleen		Fibrosis, Focal
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Hematopoiesis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_031

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Blood vessel	Coronary Artery Nos	Inflammation, Chronic
Heart		Fibrosis
Kidney		Congestion, Nos
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
Lung		Bronchopneumonia, Acute
Lymph node		Plasmacytosis
Salivary gland	Mandibular Lymph Node	Atrophy, Nos
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 4\_032

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

---

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Stomach		Hyperplasia, Epithelial
Testis		Interstitial-Cell Tumor
		Mineralization
Unspecified	Multiple Organs Nos	Congestion, Nos

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_033

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland  
Heart  
Kidney  
Liver

Pheochromocytoma  
Fibrosis  
Nephropathy  
Cytoplasmic Change, Basophilic  
Granuloma, Nos

Bile Duct

Hyperplasia, Nos

Lung  
Lymph node  
Pituitary gland

Histiocytosis

Mandibular Lymph Node

Plasmacytosis

Stomach

Cyst, Nos

Hyperplasia, Chromophobe Cell

Testis

Hyperplasia, Epithelial

Inflammation, Acute

Thyroid

Interstitial-Cell Tumor

Mineralization

Unspecified

Multiple Organs Nos

C-Cell Adenoma

Cyst, Follicular Nos

Urinary bladder

Congestion, Nos

Lymphocytic Inflammatory Infiltrate

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_034

**TRT#:** 4

**DOSE:** 0

**SEX:** Male

**DISP:** Scheduled Sacrifice

**DAY ON TEST:**

**HISTO:**

**OBSERVATIONS**

Adrenal gland		Hematopoiesis
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pancreas	Acinus	Atrophy, Nos
		Inflammation, Chronic
Stomach	Fundal Gland	Dilatation, Nos
		Inflammation, Acute
Testis		Interstitial-Cell Tumor
Unspecified	Multiple Organs Nos	Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_035

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Nodular
	Medulla	Hyperplasia, Nos
Blood vessel	Pulmonary Artery Nos	Mineralization
Epididymis		Inflammation, Chronic
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Fibroadenoma
		Hyperplasia, Epithelial
Pancreas		Cyst, Nos
Parathyroid gland		Hyperplasia, Nos
Peritoneum	Peritoneal Cavity Nos	Necrosis, Fat
Prostate		Hyperplasia, Epithelial
		Inflammation, Chronic
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_036

**TRT#:** 4  
**DOSE:** 0

**SEX:** Male  
**DISP:** Scheduled Sacrifice

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

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Fibrosis
Kidney		Congestion, Nos
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Peritoneum	Peritoneal Cavity Nos	Inflammation, Acute/Chronic
	Peritoneal Cavity Nos	Lipoma
Pituitary gland		Adenoma, Nos
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor
Thyroid		Cyst, Follicular Nos
		Hyperplasia, C Cell

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 4\_037

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

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**OBSERVATIONS**

Adrenal gland

Medulla

Hyperplasia, Nos

Pheochromocytoma

Heart

Fibrosis

Intestine Large

Colon

Hemorrhage

Kidney

Nephropathy

Lung

Pigmentation, Nos

Testis

Interstitial-Cell Tumor

Unspecified

Multiple Organs Nos

Congestion, Nos

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_038

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Cytoplasmic Vacuolization
Heart		Fibrosis
Kidney	Perirenal Tissue	Lipoma
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Fibroadenoma
Pancreas		Acinar-Cell Adenoma
Stomach		Hyperplasia, Epithelial
		Inflammation, Acute
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Cyst, Follicular Nos
		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:01  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_039

**TRT#:** 4  
**DOSE:** 0

**SEX:** Male  
**DISP:** Scheduled Sacrifice

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

**OBSERVATIONS**

Adrenal gland		Pheochromocytoma
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Fibrosis
Kidney		Mineralization
		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Granuloma, Nos
	Bile Duct	Hyperplasia, Nos
Lymph node	Mediastinal Lymph Node	Hemorrhage
	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Lactation
Parathyroid gland		Hyperplasia, Nos
Pituitary gland		Chromophobe Adenoma
Prostate		Hyperplasia, Epithelial
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

**ANIMAL ID:** 4\_040

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Moribund Sacrifice

**HISTO:**

**OBSERVATIONS**

Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
Pancreas		Cyst, Nos
Peritoneum	Peritoneal Cavity Nos	Lipoma
Pituitary gland		Hyperplasia, Chromophobe Cell
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:01

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

**Lab:** NA

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**ANIMAL ID:** 4\_041

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

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**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mediastinal Lymph Node	Hemorrhage
Mammary gland		Inflammation, Granulomatous
Parathyroid gland		Hyperplasia, Nos
Skeletal muscle	Abdominal Muscle	Fibrosarcoma
Stomach		Inflammation, Acute
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Cyst, Follicular Nos
		Hyperplasia, C Cell

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



Experiment Number: C50533

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 2,4- & 2,6-Toluene diisocyanate

CAS Number: 26471-62-5

Date Report Requested: 10/26/2014

Time Report Requested: 17:23:01

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 4\_042

TRT#: 4

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland	Cortex Nos	Hyperplasia, Nodular Pheochromocytoma
Heart		Fibrosis
Kidney		Nephropathy
Liver		Atypia, Nos Cytoplasmic Change, Basophilic
Lung	Bile Duct	Hyperplasia, Nos Histiocytosis Inflammation, Acute
Lymph node	Mediastinal Lymph Node	Hemorrhage
Pancreas	Acinus	Cytoplasmic Vacuolization
Peritoneum	Peritoneal Cavity Nos	Myxosarcoma
Spleen		Hematopoiesis
Testis		Interstitial-Cell Tumor Mineralization Necrosis, Fat
Thyroid		C-Cell Carcinoma
Unspecified	Leg	Fibroma
	Multiple Organs Nos	Myxosarcoma, Metastatic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:02

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

**Lab:** NA

**ANIMAL ID:** 4\_043

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Natural Death

**HISTO:**

**OBSERVATIONS**

Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Fibrosis
Kidney		Mineralization
		Nephropathy
Liver		Abnormal Curvature
		Necrosis, Nos
Lung		Congestion, Nos
		Thrombosis, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Dilatation, Ducts
Pituitary gland		Chromophobe Carcinoma
Spleen		Hemosiderosis

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:02

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

**Lab:** NA

**ANIMAL ID:** 4\_044

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Cytoplasmic Vacuolization

Pheochromocytoma

Blood vessel

Pulmonary Artery Nos

Mineralization

Heart

Fibrosis

Intestine Small

Mesentery Nos

Necrosis, Fat

Kidney

Hemorrhage

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Preputial gland

Adenoma, Nos

Prostate

Inflammation, Acute/Chronic

Spleen

Hematopoiesis

Testis

Interstitial-Cell Tumor

Mineralization

Thyroid

Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:02

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

**Lab:** NA

**ANIMAL ID:** 4\_045

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Nodular
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Fibrosis
Intestine Large	Colon	Hyperplasia, Lymphoid
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
		Cytoplasmic Change, Eosinophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Hyperplasia, Epithelial
Pituitary gland		Chromophobe Adenoma
Prostate		Hyperplasia, Epithelial
Spleen		Hemosiderosis
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Hyperplasia, C Cell
		Mineralization
Unspecified	Multiple Organs Nos	Congestion, Nos

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:02  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_046

**TRT#:** 4  
**DOSE:** 0

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

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

**OBSERVATIONS**

Adrenal gland		Cytoplasmic Vacuolization
	Cortex Nos	Hyperplasia, Nodular
Bone marrow		Fibrosis, Myelo
Brain		Gliosis
		Malacia
Heart		Inflammation, Chronic
Kidney		Nephropathy
Liver		Atypia, Nos
		Cytoplasmic Vacuolization
	Bile Duct	Hyperplasia, Nos
Lymph node	Mediastinal Lymph Node	Histiocytosis
Mammary gland		Lactation
Stomach		Inflammation, Acute/Chronic
Testis		Interstitial-Cell Tumor
		Mineralization
Thyroid		Hyperplasia, C Cell
Unspecified	Multiple Organs Nos	Leukemia, Monocytic

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:02

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

**Lab:** NA

**ANIMAL ID:** 4\_047

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland

Cortex Nos

Hyperplasia, Nodular

Medulla

Hyperplasia, Nos

Blood vessel

Pulmonary Artery Nos

Mineralization

Heart

Fibrosis

Kidney

Nephropathy

Liver

Cytoplasmic Change, Basophilic

Bile Duct

Hyperplasia, Nos

Lung

Lymphocytic Inflammatory Infiltrate

Lymph node

Mediastinal Lymph Node

Hemorrhage

Mandibular Lymph Node

Plasmacytosis

Parathyroid gland

Hyperplasia, Nos

Spleen

Hemosiderosis

Testis

Interstitial-Cell Tumor

Thyroid

Mineralization

Hyperplasia, C Cell

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** C50533  
**Test Type:** Long-Term  
**Route:** Gavage  
**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** 2,4- & 2,6-Toluene diisocyanate  
**CAS Number:** 26471-62-5

**Date Report Requested:** 10/26/2014  
**Time Report Requested:** 17:23:02  
**First Dose M/F:** NA / NA  
**Lab:** NA

**ANIMAL ID:** 4\_048

**TRT#:** 4  
**DOSE:** 0

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

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

**OBSERVATIONS**

Bone marrow		Fibrosis, Myelo
Heart		Fibrosis
Kidney		Nephropathy
		Pyelonephritis, Acute
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
		Necrosis, Nos
		Neoplastic Nodule
Lung		Histiocytosis
Mammary gland		Fibroadenoma
		Hyperplasia, Nos
Pancreas	Acinus	Atrophy, Nos
Prostate		Inflammation, Acute/Chronic
Spleen		Hematopoiesis
Stomach		Hyperplasia, Epithelial
Testis		Interstitial-Cell Tumor
		Mineralization
Urinary bladder		Inflammation, Acute

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

Experiment Number: C50533

Test Type: Long-Term

Route: Gavage

Species/Strain: Rat/F344

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

Test Compound: 2,4- & 2,6-Toluene diisocyanate

CAS Number: 26471-62-5

Date Report Requested: 10/26/2014

Time Report Requested: 17:23:02

First Dose M/F: NA / NA

Lab: NA

ANIMAL ID: 4\_049

TRT#: 4

SEX: Male

DAY ON TEST:

DOSE: 0

DISP: Scheduled Sacrifice

HISTO:

OBSERVATIONS

Adrenal gland		Pheochromocytoma
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lung		Histiocytosis
Lymph node	Mandibular Lymph Node	Plasmacytosis
Mammary gland		Fibroadenoma
		Hyperplasia, Epithelial
Pancreas	Acinus	Atrophy, Nos
Prostate		Inflammation, Chronic
Spleen	Red Pulp	Collapse
		Hematopoiesis
Testis		Interstitial-Cell Tumor
		Mesothelioma, Malignant
Thyroid		C-Cell Adenoma
		Cyst, Follicular Nos
Unspecified	Multiple Organs Nos	Mesothelioma, Invasive
	Multiple Organs Nos	Mesothelioma, Metastatic

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** C50533

**Test Type:** Long-Term

**Route:** Gavage

**Species/Strain:** Rat/F344

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** 2,4- & 2,6-Toluene diisocyanate

**CAS Number:** 26471-62-5

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

**Time Report Requested:** 17:23:02

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

**Lab:** NA

**ANIMAL ID:** 4\_050

**TRT#:** 4

**SEX:** Male

**DAY ON TEST:**

**DOSE:** 0

**DISP:** Scheduled Sacrifice

**HISTO:**

**OBSERVATIONS**

Adrenal gland	Cortex Nos	Hyperplasia, Nodular
Blood vessel	Pulmonary Artery Nos	Mineralization
Heart		Fibrosis
Kidney		Nephropathy
Liver		Cytoplasmic Change, Basophilic
	Bile Duct	Hyperplasia, Nos
Lymph node	Mandibular Lymph Node	Plasmacytosis
Pancreas	Acinus	Atrophy, Nos
Pituitary gland		Hyperplasia, Chromophobe Cell
Testis		Interstitial-Cell Tumor
		Mineralization

PRIMARY CAUSE OF DEATH

-

**\*\* END OF REPORT \*\***