

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

F1\_Rev.1\_P14\_R2

**C Number:** C20107  
**Lock Date:** 02/20/2008  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.3.0  
**PWG Approval Date:** 01/25/2011

TDMS No. 20107 - 03  
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Date Report Requested: 02/24/2011  
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 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 1

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603191

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Adenoma	
	[ Adenoma TGLs = 1-14 ]		
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear Cl, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
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**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

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CAS Number: 99-97-8

Date Report Requested: 02/24/2011

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First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 1

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603191

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 2-11 ]			
* Thymus		Atrophy	Marked
* Thyroid Gland	C Cell	Adenoma	

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
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 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 2

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603192

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Hepatodiaphragmatic Nodule		
* Lung	TGLs = 2-14 ]		
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
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**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

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Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 2

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603192

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland	Pars Distalis	Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland		Hyperplasia	Minimal
* Spleen		Inflammation	Mild
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 3

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603193

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 2,3-14+15 ]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
	[ Cyst TGLs = 4-8 ]		
	[ Hyperplasia TGLs = 4-8 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
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**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 3

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603193

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Preputial Gland		Inflammation	Mild
* Spleen		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

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Date Report Requested: 02/24/2011  
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 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 4

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603194

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Harderian Gland		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
		Inflammation	Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal

\* PROTOCOL REQUIRED TISSUE



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**Lab:** BAT

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**ANIMAL ID:** 4

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603194

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLs = 1,2-11 ]

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 Lab: BAT

ANIMAL ID: 5

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603195

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

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**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 5

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603195

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Thymus		Pigmentation	Minimal
* Thyroid Gland	C Cell	Atrophy	Mild
		Adenoma	

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
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 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 6

TRT#: 1

SEX: Male

DAY ON TEST: 680

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603196

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Minimal
		Leukemia Mononuclear	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Degeneration	Cystic, Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Leukemia Mononuclear	
		Necrosis	Minimal
	[ Leukemia Mononuclear TGLs = 2-6+7 ]		
* Lung		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 6-3+4 ]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 4-16 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
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 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 6

TRT#: 1

SEX: Male

DAY ON TEST: 680

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603196

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Leukemia Mononuclear	
* Preputial Gland		Inflammation	Mild
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 1-14 ]		
* Stomach, Forestomach		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 5-11 ]		
* Thymus		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 3-15 ]		
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

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 Lab: BAT

ANIMAL ID: 7

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603197

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 3-15 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

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CAS Number: 99-97-8

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Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 7

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603197

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Mild
* Skin		Keratoacanthoma	
	[ Keratoacanthoma TGLs = 1-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes		Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	Interstit Cell		
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Marked

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 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 8

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603198

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Leukemia Mononuclear	
	[ Eosinophilic Focus TGLs = 3-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 8

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603198

ORGAN AND ACCOUNTABLE SITE STATUS

* Seminal Vesicle	Inflammation	Moderate
* Spleen	Congestion	Mild
	Hematopoietic Cell Proliferation	Minimal
	Leukemia Mononuclear	
[ Congestion TGLs = 1-5 ]		
[ Leukemia Mononuclear TGLs = 1-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma
[ Adenoma TGLs = 2-11 ]		
* Thymus	Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 9

TRT#: 1

SEX: Male

DAY ON TEST: 645

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603199

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
Coagulating Gland	Epithelium	Hyperplasia	Moderate
		Inflammation	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Mild
		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Moderate
* Liver		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 3-6+7 ]		
* Lung		Leukemia Mononuclear	
Lymph Node	Deep Cervical	Hyperplasia	Plasma Cell, Mild
	[ Hyperplasia TGLs = 5-17 ]		
Mesentery	Fat	Necrosis	Mild
	[ Necrosis TGLs = 4-16 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 9

TRT#: 1

SEX: Male

DAY ON TEST: 645

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603199

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Olfactory Epi Glands, Respirat Epith	Accumulation, Hyaline Droplet Dilatation Inflammation	Minimal Minimal Minimal
	Glands, Respirat Epith	Metaplasia Infiltration Cellular	Respiratory, Minimal Mononuclear CI, Minimal
* Pancreas		Hyperplasia	Diffuse, Mild
* Parathyroid Gland		Adenoma	
* Pituitary Gland	Pars Distalis		
	[ Adenoma TGLs = 6-8 ]		
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Moderate
* Skin		Fibroma	Multiple
	[ Fibroma TGLs = 1,7-14+18 ]		
* Spleen	Capsule	Fibrosis Leukemia Mononuclear	Mild
	[ Leukemia Mononuclear TGLs = 2-15 ]		
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Atrophy	Marked
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603200

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Marked
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Note: A foreign material was present in the meatus.		
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 10

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603200

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Bilateral, Interstit Cell	Pigmentation	Minimal
[ Adenoma TGLs = 1-11 ]		Adenoma	
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 11

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603201

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
* Adrenal Medulla		Hyperplasia	Mild
		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Marked
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Parathyroid Gland		Hyperplasia	Focal, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 11

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603201

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 688

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603202

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Malignant	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Mild
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[ Hepatodiaphragmatic Nodule TGLs = 3-15 ]		
	[ Leukemia Mononuclear TGLs = 2-6+7 ]		
* Lung		Leukemia Mononuclear	
		Pheochromocytoma Malignant	Metastatic (Adrenal Medulla)
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 12

TRT#: 1

SEX: Male

DAY ON TEST: 688

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603202

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith Acinus	Metaplasia Atrophy Infiltration Cellular	Respiratory, Minimal Mild Mononuclear CI, Minimal
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Moderate
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 1-14 ]		
* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Minimal
	[ Adenoma TGLs = 4-11 ]		
* Thymus		Atrophy	Marked

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 610

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603203

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
[ Hepatodiaphragmatic Nodule	TGLs = 2-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma	TGLs = 1-8 ]		
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Interstit Cell	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 13

TRT#: 1

SEX: Male

DAY ON TEST: 610

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603203

**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Thymus

Atrophy

Moderate

\* Thyroid Gland

C Cell

Hyperplasia

Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603204

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hypertrophy	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 4-16 ]		
	[ Eosinophilic Focus TGLs = 2,3-14+15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 5-17 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 14

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603204

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Acinus	Inflammation	Minimal
		Atrophy	Minimal
		Infiltration Cellular	Mononuclear CI, Mild
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603205

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 15

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603205

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603206

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Fatty Change	Focal, Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Basophilic Focus	Mild
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 16

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603206

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 1-8 ]			
* Preputial Gland		Inflammation	Mild
* Skin		Fibroma	
[ Fibroma TGLs = 3-14 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 2-11 ]			
* Thymus		Atrophy	Marked

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 17

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603207

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Moderate
		Infiltration Cellular	Mononuclear Cl, Mild
* Preputial Gland		Inflammation	Mild
* Skin		Fibroma	
	[ Fibroma TGLs = 2-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 17

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603207

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Marked
* Thyroid Gland	C Cell	Adenoma	

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 18

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 710

**DOSE:** 0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603208

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hypertrophy	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Mild
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Moderate
* Heart		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Fatty Change	Diffuse, Mild
		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	
	Hepatocyte	Necrosis	Minimal
	[ Leukemia Mononuclear TGLs = 5-6+7 ]		
* Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 18

TRT#: 1

SEX: Male

DAY ON TEST: 710

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603208

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
* Pituitary Gland	Glands, Respirat Epith Pars Distalis	Metaplasia	Respiratory, Minimal
		Adenoma	
		Leukemia Mononuclear	
	[ Adenoma TGLs = 1-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Moderate
	[ Inflammation TGLs = 3-13+14 ]		
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 4-5 ]		
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thymus		Atrophy	Marked

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603209

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Hepatodiaphragmatic Nodule		
* Lung	TGLs = 2-14 ]	Infiltration Cellular	Histiocyte, Minimal
* Nose	Alveolus	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 19

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603209

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin		Fibroma	
	[ Fibroma TGLs = 3-15 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes		Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 20

TRT#: 1

SEX: Male

DAY ON TEST: 610

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0603210

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 1-14 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal

\* PROTOCOL REQUIRED TISSUE



**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

---

**ANIMAL ID:** 20

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 610

**DOSE:** 0 MG/KG

**DISP:** Natural Death

**HISTO:** 0603210

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Thymus

Atrophy

Moderate

---

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

---

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603211

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

---

ANIMAL ID: 21

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603211

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLs = 1-11 ]

\* Thymus

Atrophy

Mild

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603212

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 22

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603212

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Interstit Cell	Hyperplasia	Minimal
[ Hyperplasia TGLs = 1-11 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603213

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
	[ Pheochromocytoma Benign TGLs = 4-8 ]		
* Eye			
	Note: Optic nerve on slide 9.		
* Heart		Carcinoma	Metastatic (Uncertain Primary Site)
		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 2-14 ]		
	[ Mixed Cell Focus TGLs = 2,3-14+15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 23

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603213

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Olfactory Epi Respirat Epith	Accumulation, Hyaline Droplet Hyperplasia Inflammation	Mild Minimal Mild
* Pancreas	Olfactory Epi Acinus	Metaplasia Atrophy Infiltration Cellular	Respiratory, Minimal Moderate Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Hyperplasia Inflammation	Moderate Mild
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Minimal
* Testes	Bilateral, Interstit Cell Interstit Cell	Adenoma Hyperplasia	Minimal Minimal
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 24

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603214

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Fatty Change	Focal, Mild
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Leukemia Mononuclear	
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pancreas	Acinus	Hyperplasia	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild
* Spleen		Leukemia Mononuclear	

[ Leukemia Mononuclear TGLs = 2-5 ]

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

---

**ANIMAL ID:** 24

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603214

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 3-11 ]			
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Adenoma	
[ Adenoma TGLs = 1-8 ]			

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 25

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 609

**DOSE:** 0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603215

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Mild
		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
		Leukemia Mononuclear	
		Pigmentation	Minimal
* Liver		Hemorrhage	Mild
		Leukemia Mononuclear	
	[ Hemorrhage TGLs = 6-6+7 ]		
* Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
	Deep Cervical	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 3-15 ]		
	[ Leukemia Mononuclear TGLs = 4-16 ]		
	[ Leukemia Mononuclear TGLs = 7-18 ]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 5-17 ]		
Mesentery	Fat	Leukemia Mononuclear	
	Fat	Necrosis	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 25

TRT#: 1

SEX: Male

DAY ON TEST: 609

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603215

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Necrosis TGLs = 1-14 ]

* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Inflammation	Minimal
* Pancreas	Acinus	Leukemia Mononuclear	
		Atrophy	Mild
		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 2-5 ]		
* Stomach, Glandular		Erosion	Minimal
	[ Erosion TGLs = 9-19 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 8-11 ]		
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Trachea		Inflammation	Mild

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 26

TRT#: 1

SEX: Male

DAY ON TEST: 337

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603216

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Testes
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mandibular                      Zymbal's Gland

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Eye	Cornea	Inflammation	Mild
Note: Both optic nerves missing. [ Inflammation    TGLs = 1-10 ]			
* Heart		Cardiomyopathy	Minimal
		Pigmentation	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Leukemia Mononuclear	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Inflammation	Mild
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Nose		Leukemia Mononuclear	
* Pancreas	Acinus	Atrophy	Minimal
		Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland		Inflammation	Minimal
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear    TGLs = 2-14 ]			
* Thymus		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

---

**ANIMAL ID:** 26

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 337

**DOSE:** 0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603216

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 27

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603217

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Hepatodiaphragmatic Nodule		
	TGLs = 2-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

---

**ANIMAL ID:** 27

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603217

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

Interstit Cell

Hyperplasia

Minimal

[ Adenoma TGLs = 1-11 ]

[ Hyperplasia TGLs = 1-11 ]

Atrophy

Mild

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\* Thymus

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603218

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
		Infiltration Cellular	Mononuclear Cl, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Skin		Basal Cell Adenoma	

[ Basal Cell Adenoma TGLs = 1-14 ]

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 28

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603218

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen		Hematopoietic Cell Proliferation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild
* Trachea		Inflammation	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603219

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Carcinoma	
[ Carcinoma TGLs = 2-14 ]			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
[ Eosinophilic Focus TGLs = 3-15, UPLa, UPLb ]			
[ Fatty Change TGLs = 3-15 ]			
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pancreas	Acinus	Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 29

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603219

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 30

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603220

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Clear Cell Focus TGLs = 2-14 ]		
* Lung		Inflammation	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Pigmentation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

---

**ANIMAL ID:** 30

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603220

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	Bilateral, C Cell	Adenoma	

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603221

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epi	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 31

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603221

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603222

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Bone		Osteosarcoma	
	[ Osteosarcoma TGLs = 6-16 ]		
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 2-6+7 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 32

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603222

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 4-15 ]			
* Preputial Gland		Inflammation	Minimal
* Skin	Sebaceous GI	Adenoma	
[ Adenoma TGLs = 3-14 ]			
* Spleen		Leukemia Mononuclear	
[ Leukemia Mononuclear TGLs = 1-5 ]			
* Testes	Interstit Cell	Adenoma	
[ Adenoma TGLs = 5-11 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 33

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603223

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pancreas	Acinus	Atrophy	Mild
		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 33

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603223

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603224

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
		Mixed Cell Focus	
	[ Hepatodiaphragmatic Nodule TGLs = 2-14 ]		
	[ Inflammation TGLs = 1-6+7 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 34

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603224

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 3-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 35

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603225

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Mammary Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Eye			
Note: Optic nerves on slide 9.			
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 35

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603225

ORGAN AND ACCOUNTABLE SITE STATUS

* Parathyroid Gland		Infiltration Cellular	Mononuclear CI, Mild
* Preputial Gland		Hyperplasia	Focal, Mild
* Skin		Inflammation	Mild
	[ Fibroma TGLs = 2-14 ]	Fibroma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	
		Hemangioma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603226

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Eosinophilic Focus TGLs = 1-14 ]		
* Lung	Alveolar Epith	Hyperplasia	Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
		Cyst	
		Infiltration Cellular	Mononuclear CI, Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 36

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603226

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 2-8 ]	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 37

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603227

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| Blood Vessel               | * Bone                    | * Brain                     | * Epididymis             |
| * Esophagus                | * Eye                     | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Mammary Gland          |
| * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           | * Seminal Vesicle        |
| * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        | * Thymus                 |
| * Trachea                  | * Urinary Bladder         | Zymbal's Gland              |                          |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                               |                |                               |                     |
|-------------------------------|----------------|-------------------------------|---------------------|
| * Adrenal Cortex              |                | Angiectasis                   | Minimal             |
|                               |                | Vacuolization Cytoplasmic     | Minimal             |
| * Adrenal Medulla             |                | Hyperplasia                   | Minimal             |
| * Bone Marrow                 |                | Hyperplasia                   | Mild                |
| * Eye                         |                |                               |                     |
| Note: Optic nerve on slide 9. |                |                               |                     |
| * Heart                       |                | Cardiomyopathy                | Minimal             |
| * Kidney                      |                | Mineralization                | Minimal             |
|                               |                | Nephropathy                   | Mild                |
| * Liver                       |                | Clear Cell Focus              |                     |
|                               |                | Eosinophilic Focus            |                     |
|                               | Bile Duct      | Fibrosis                      | Minimal             |
|                               | Bile Duct      | Hyperplasia                   | Minimal             |
|                               |                | Inflammation                  | Minimal             |
|                               |                | Mixed Cell Focus              |                     |
| * Lymph Node, Mesenteric      |                | Infiltration Cellular         | Histiocyte, Minimal |
| Mesentery                     | Fat            | Necrosis                      | Moderate            |
| [ Necrosis TGLs = 2-14 ]      |                |                               |                     |
| * Nose                        | Respirat Epith | Accumulation, Hyaline Droplet | Moderate            |
|                               | Olfactory Epi  | Accumulation, Hyaline Droplet | Moderate            |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 37

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603227

**ORGAN AND ACCOUNTABLE SITE STATUS**

Foreign Body

Respirat Epith

Hyperplasia

Minimal

Inflammation

Mild

Note: A foreign material was present in the meatus.

\* Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLs = 3-8 ]

\* Preputial Gland

Inflammation

Mild

\* Prostate

Inflammation

Moderate

\* Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Minimal

\* Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLs = 1-11 ]

\* Thyroid Gland

C Cell

Hyperplasia

Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 699

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0603228

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum	* Islets, Pancreatic
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Skin	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Moderate
* Heart		Leukemia Mononuclear	
* Intestine Small, Duodenum		Leukemia Mononuclear	
* Intestine Small, Jejunum		Leukemia Mononuclear	
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Mild
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 3-6+7 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 7-3+4 ]		
Lymph Node	Mediastinal	Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 5-15 ]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 6-16 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 38

TRT#: 1

SEX: Male

DAY ON TEST: 699

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0603228

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
		Leukemia Mononuclear	
* Preputial Gland		Inflammation	Mild
* Seminal Vesicle		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 2-14 ]		
* Stomach, Forestomach		Leukemia Mononuclear	
* Stomach, Glandular		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Adenoma	
* Trachea		Leukemia Mononuclear	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603229

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Epididymis		Mesothelioma Malignant	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Eosinophilic Focus TGLs = 2,3-14+15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 39

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603229

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 4-8 ]	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes [ Adenoma TGLs = 1-11 ]	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Minimal
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 40

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603230

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
		Pheochromocytoma Complex	
	[ Pheochromocytoma Complex TGLs = 2-14 ]		
* Eye			
	Note: Optic nerves on slide 9.		
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Marked
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 40

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603230

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 1-11 ]		
* Trachea		Inflammation	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 41

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603231

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Congestion	Mild
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Congestion TGLs = 4-6+7 ]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 3-15 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 41

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603231

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 5-8 ]		
* Preputial Gland		Inflammation	Moderate
* Prostate		Inflammation	Mild
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 2-14 ]		
* Testes	Interstit Cell	Adenoma	
		Mineralization	Minimal
	[ Adenoma TGLs = 1-11 ]		
	[ Mineralization TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 612

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603232

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

* Lymph Node, Mandibular	* Parathyroid Gland
--------------------------	---------------------

**OBSERVATIONS**

* Adrenal Cortex		Leukemia Mononuclear	
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 2-6+7 ]		
* Lung		Leukemia Mononuclear	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
* Pancreas	Acinus	Atrophy	Mild
		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
		Leukemia Mononuclear	
* Seminal Vesicle		Leukemia Mononuclear	
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 1-5 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 42

TRT#: 1

SEX: Male

DAY ON TEST: 612

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603232

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 3-11 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603233

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Basophilic Focus TGLs = 4-17 ]		
	[ Clear Cell Focus TGLs = 2-15 ]		
	[ Mixed Cell Focus TGLs = 3-16 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 1-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 43

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603233

ORGAN AND ACCOUNTABLE SITE STATUS

	Respirat Epith	Foreign Body	
	Transit Epithe	Hyperplasia	Mild
		Hyperplasia	Mild
		Inflammation	Moderate
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

Note: Foreign material (hair shafts) were present in the meatuses in areas of prominent inflammation and hyperplasia.

Note: A foreign material was present in the meatus.

* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 5-8 ]		
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 665

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603234

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Eye			
Note: Optic nerves on slide 9.			
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Leukemia Mononuclear	
		Mixed Cell Focus	
	[ Leukemia Mononuclear TGLs = 1-6+7 ]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 44

TRT#: 1

SEX: Male

DAY ON TEST: 665

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603234

**ORGAN AND ACCOUNTABLE SITE STATUS**

		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Mild
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 3-14 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Marked
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tooth	Peridont Tiss	Inflammation	Moderate

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 45

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603235

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Epididymis
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Mammary Gland	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Mild
* Brain		Carcinoma	Metastatic (Pituitary Gland)
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Angiectasis	Mild
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Angiectasis TGLs = 4-6+7+15 ]		
	[ Hepatodiaphragmatic Nodule TGLs = 3-15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 45

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603235

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Infiltration Cellular	Mononuclear CI, Minimal
* Skin		Carcinoma	
	[ Keratoacanthoma TGLs = 1-14 ]	Keratoacanthoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Marked

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603236

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
Note: A foreign material was present in the meatus.			
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 46

TRT#: 1

SEX: Male

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603236

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 4-8 ]			
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Skin		Fibroma	
		Keratoacanthoma	
[ Fibroma TGLs = 2-15 ]			
[ Keratoacanthoma TGLs = 1-14 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
[ Adenoma TGLs = 3-11 ]			
* Thymus		Atrophy	Mild
Zymbal's Gland		Hyperplasia	Marked

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 680

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603237

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | Blood Vessel             | * Bone                     | * Bone Marrow             |
| * Brain                     | * Epididymis             | * Esophagus                | * Eye                     |
| * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Lymph Node, Mesenteric | * Mammary Gland            | * Pancreas                |
| * Parathyroid Gland         | * Prostate               | * Seminal Vesicle          | * Skin                    |
| * Stomach, Forestomach      | * Stomach, Glandular     | * Trachea                  | * Urinary Bladder         |
| Zymbal's Gland              |                          |                            |                           |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                   |                              |                               |                      |
|-------------------|------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex  |                              | Vacuolization Cytoplasmic     | Minimal              |
| * Heart           |                              | Cardiomyopathy                | Mild                 |
| * Kidney          |                              | Mineralization                | Minimal              |
|                   |                              | Nephropathy                   | Minimal              |
|                   |                              | Pigmentation                  | Minimal              |
| * Liver           |                              | Basophilic Focus              |                      |
|                   |                              | Hepatodiaphragmatic Nodule    |                      |
|                   |                              | Inflammation                  | Minimal              |
|                   | [ Hepatodiaphragmatic Nodule |                               |                      |
| * Nose            | TGLs = 3-15 ]                |                               |                      |
|                   | Respirat Epith               | Accumulation, Hyaline Droplet | Minimal              |
|                   | Olfactory Epi                | Accumulation, Hyaline Droplet | Moderate             |
|                   |                              | Foreign Body                  |                      |
|                   | Respirat Epith               | Hyperplasia                   | Minimal              |
|                   |                              | Inflammation                  | Mild                 |
| * Pituitary Gland | Glands, Respirat Epith       | Metaplasia                    | Respiratory, Minimal |
|                   | Pars Distalis                | Adenoma                       |                      |
|                   | [ Adenoma TGLs = 2-15 ]      |                               |                      |
| * Preputial Gland |                              | Inflammation                  | Minimal              |
| * Salivary Glands |                              | Sarcoma                       |                      |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 47

TRT#: 1

SEX: Male

DAY ON TEST: 680

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603237

ORGAN AND ACCOUNTABLE SITE STATUS

[ Sarcoma TGLs = 1-14 ]

\* Spleen

\* Testes

\* Thymus

\* Thyroid Gland

[ Sarcoma TGLs = 4-16 ]

Interstit Cell

Pigmentation

Hyperplasia

Atrophy

Sarcoma

Mild

Minimal

Moderate

Metastatic (Salivary Glands)

PRIMARY CAUSE OF DEATH

- Salivary Glands Sarcoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 48

TRT#: 1

SEX: Male

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603238

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 48

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603238

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLs = 1-11 ]

\* Thymus

Atrophy

Moderate

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 49

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 664

**DOSE:** 0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603239

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Brain		Demyelination	Mild
		Hemorrhage	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 49

TRT#: 1

SEX: Male

DAY ON TEST: 664

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603239

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hemorrhage	Moderate
[ Hemorrhage TGLs = 1-8 ]			
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Stomach, Forestomach		Erosion	Minimal
		Inflammation	Mild
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Hemorrhage

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 50

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603240

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Necrosis	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Renal Tubule	Adenoma	
		Nephropathy	Marked
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 50

TRT#: 1

SEX: Male

DAY ON TEST: 727

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603240

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 51

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603241

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland		Hyperplasia	Moderate
* Skin		Inflammation	Minimal
[ Fibroma TGLs = 1-14 ]		Fibroma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 2-11 ]			
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 52

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603242

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Epididymis		Mesothelioma Malignant	
	[ Mesothelioma Malignant TGLs = 3-15 ]		
* Eye			
	Note: Optic nerves onslide 9.		
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 52

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603242

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Moderate
* Skin		Keratoacanthoma	
	[ Keratoacanthoma TGLs = 1-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 53

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603243

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Epididymis		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Transit Epithe	Adenoma	
		Inflammation	Minimal
* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Acinus	Atrophy	Mild
		Infiltration Cellular	Mononuclear CI, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 53

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603243

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Mild
* Spleen	Lymph Follic	Atrophy	Mild
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 54

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603244

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Diffuse, Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 54

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603244

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith Acinus	Metaplasia Atrophy	Respiratory, Minimal Mild
* Pituitary Gland [ Adenoma TGLs = 2-8 ]	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Skin [ Keratoacanthoma TGLs = 1-14 ]		Keratoacanthoma	
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 55

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603245

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Fatty Change	Diffuse, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 2,3-14+15 ]		
	[ Mixed Cell Focus TGLs = 3-16 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epi	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 55

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603245

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Glands, Respirat Epith Pars Distalis	Metaplasia Adenoma	Respiratory, Minimal
* Preputial Gland		Inflammation	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Mild
	[ Adenoma TGLs = 1-11 ]		
	[ Hyperplasia TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 56

TRT#: 3

SEX: Male

DAY ON TEST: 601

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603246

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Colon		Parasite Metazoan	
* Islets, Pancreatic		Adenoma	
	[ Adenoma TGLs = 2-15 ]		
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Moderate
Lymph Node	Mediastinal	Ectasia	Mild
	Mediastinal	Hemorrhage	Moderate
	[ Ectasia TGLs = 1-14 ]		
	[ Hemorrhage TGLs = 1-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Glands, Respirat Epith	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE



**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

**ANIMAL ID:** 56

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 601

**DOSE:** 6 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603246

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pancreas	Acinus	Atrophy	Minimal
		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Stomach, Forestomach		Inflammation	Moderate
		Ulcer	Moderate
	[ Inflammation TGLs = 4-14 ]		
* Testes	Interstit Cell	Hyperplasia	Mild
	[ Hyperplasia TGLs = 3-11 ]		
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

**PRIMARY CAUSE OF DEATH** - UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 57

TRT#: 3

SEX: Male

DAY ON TEST: 624

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603247

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Moderate
* Brain		Carcinoma	Metastatic (Pituitary Gland)
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia Leukemia Mononuclear	Minimal
	[ Leukemia Mononuclear TGLs = 4-6+7 ]		
* Lung		Inflammation	Mild
* Lymph Node, Mesenteric		Leukemia Mononuclear	
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 3-17 ]		
* Nose	Respirat Epith Olfactory Epi	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet	Minimal Mild
		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Carcinoma	
	[ Carcinoma TGLs = 5-8 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 57

TRT#: 3

SEX: Male

DAY ON TEST: 624

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603247

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Mild
* Spleen	Capsule	Hemorrhage	Moderate
		Leukemia Mononuclear	
	[ Hemorrhage TGLs = 2-15+16 ]		
	[ Leukemia Mononuclear TGLs = 1-14 ]		
* Thymus		Atrophy	Marked

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear  
CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Pars Distalis Carcinoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 58

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603248

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Oncocytoma Benign	
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 58

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603248

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
Note: A foreign material was present in the meatus.			
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 1-8 ]			
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Pigmentation	Moderate
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 59

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603249

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Medulla		Infiltration Cellular	Lymphocyte, Moderate
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Mammary Gland		Carcinoma	
	[ Carcinoma TGLs = 1-14 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 2-15 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 59

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603249

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 3-11 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 60

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603250

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Hepatodiaphragmatic Nodule		
* Lung	TGLs = 2-14 ]	Hyperplasia	Moderate
* Nose	Alveolar Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Foreign Body	
		Inflammation	Minimal
* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Acinus	Atrophy	Mild
		Cyst	

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 60

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603250

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland	Pars Distalis	Hyperplasia	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Inflammation	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 61

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603251

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular Zymbal's Gland	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Eye	Retina	Atrophy	Moderate
	Lens	Degeneration	Moderate
	Cornea	Hyperplasia	Mild
		Inflammation	Mild
Note: There was hyperplasia of the superficial epithelium in one eye.			
	[ Degeneration	TGLs = 1-10 ]	
	[ Hyperplasia	TGLs = 1-10 ]	
	[ Inflammation	TGLs = 1-10 ]	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 61

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603251

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Marked

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 62

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603252

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Parathyroid Gland		Cyst	
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 62

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603252

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Testes	Bilateral, Interstit Cell	Pigmentation	Minimal
[ Adenoma TGLs = 1-11 ]		Adenoma	
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 63

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603253

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
	[ Eosinophilic Focus TGLs = 2,3-14+15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
* Pancreas	Acinus	Atrophy	Mild
		Infiltration Cellular	Mononuclear Cl, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 63

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603253

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 4-8 ]	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes [ Adenoma TGLs = 1-11 ]	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 64

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603254

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Hyperplasia	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 64

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603254

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 65

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603255

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Mammary Gland	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 4-16 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 3-15 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 65

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603255

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland		Hyperplasia	Mild
		Adenoma	
		Inflammation	Minimal
[ Adenoma TGLs = 1-14 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 2-11 ]			
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 66

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603256

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Harderian Gland		Infiltration Cellular	Lymphoid, Moderate
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 66

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603256

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
		Cyst	
	[ Adenoma TGLs = 1,2-11+14 ]		
	[ Cyst TGLs = 1-14 ]		
* Thymus		Atrophy	Marked
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 67

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603257

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
	[ Eosinophilic Focus TGLs = 2-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Respirat Epith	Hyperplasia	Minimal
* Pancreas	Acinus	Atrophy	Moderate
		Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 67

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603257

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Adenoma TGLs = 1-11 ]

\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 68

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603258

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Medulla		Hyperplasia	Minimal
* Eye			
Note: Both optic nerves missing.			
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
	Pelvis	Inflammation	Minimal
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
		Vacuolization Cytoplasmic	Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Respirat Epith	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 68

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603258

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 1-8 ]

\* Preputial Gland

Inflammation

Moderate

\* Prostate

Inflammation

Moderate

\* Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Moderate

\* Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLs = 2-11 ]

\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 69

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603259

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 69

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603259

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin		Lipoma	
	[ Lipoma TGLs = 1-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 70

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603260

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 70

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603260

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Hyperplasia TGLs = 3-14 ]	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild
* Skin [ Fibroma TGLs = 1-15 ]		Fibroma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes [ Adenoma TGLs = 2-11 ]	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 71

TRT#: 3

SEX: Male

DAY ON TEST: 512

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603261

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Atypia Cellular	Marked
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
	[ Nephropathy TGLs = 1-5 ]		
* Liver		Fatty Change	Diffuse, Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Atrophy	Mild
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 71

TRT#: 3

SEX: Male

DAY ON TEST: 512

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603261

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Stomach, Forestomach		Pigmentation	Mild
* Thymus		Hyperplasia	Squamous, Minimal
* Thyroid Gland	C Cell	Atrophy	Mild
		Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 72

TRT#: 3

SEX: Male

DAY ON TEST: 695

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603262

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Moderate
* Eye	Cornea	Inflammation	Moderate
Note: Exudate was present in the anterior chamber. [ Inflammation TGLs = 1-10 ]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Fatty Change	Diffuse, Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLs = 3-14 ]			
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Squam Epithel	Cyst	
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 72

TRT#: 3

SEX: Male

DAY ON TEST: 695

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603262

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Stomach, Forestomach		Inflammation	Minimal
		Ulcer	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Moderate
Tooth	Peridont Tiss	Inflammation	Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 73

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 695

**DOSE:** 6 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603263

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Fatty Change	Diffuse, Minimal
	Bile Duct	Hyperplasia	Minimal
* Lung	Alveolar Epith	Hyperplasia	Moderate
	[ Hyperplasia TGLs = 3-15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 73

TRT#: 3

SEX: Male

DAY ON TEST: 695

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603263

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate		Inflammation	Mild
* Skin		Sarcoma	
	[ Sarcoma TGLs = 2-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Minimal
* Testes		Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Marked
* Thyroid Gland		Hyperplasia	Mild
Tooth		Inflammation	Minimal

Note: Hair shafts were present in the areas of inflammation.

PRIMARY CAUSE OF DEATH - Skin Sarcoma

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 74

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603264

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Harderian Gland		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Degeneration	Cystic, Mild
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Moderate
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 74

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603264

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen	Lymph Follic	Atrophy	Mild
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
	[ Adenoma TGLs = 1-11 ]		
	[ Hyperplasia TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 75

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603265

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
	[ Infiltration Cellular TGLs = 4-3+4 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 1-11 ]		
	[ Hyperplasia TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 76

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603266

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

* Lymph Node, Mandibular	* Thymus
--------------------------	----------

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Moderate
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 3,4-14+15 ]		
	[ Degeneration TGLs = 4-15 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Moderate

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 76

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603266

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
Note: A foreign material was present in the meatus.			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 1-8 ]			
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	
[ Adenoma TGLs = 2-11 ]			
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 77

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 721

**DOSE:** 6 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603267

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Brain                     | * Epididymis             |
| * Esophagus                | * Eye                     | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lymph Node, Mesenteric    | * Mammary Gland          |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Thyroid Gland          |
| * Trachea                  | Zymbal's Gland            |                             |                          |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                   |                                 |                           |                   |
|-------------------|---------------------------------|---------------------------|-------------------|
| * Adrenal Cortex  |                                 | Hyperplasia               | Minimal           |
|                   |                                 | Osteosarcoma              | Metastatic (Bone) |
|                   |                                 | Vacuolization Cytoplasmic | Mild              |
|                   | [ Osteosarcoma TGLs = 6-14 ]    |                           |                   |
| * Bone            |                                 | Osteosarcoma              |                   |
|                   | [ Osteosarcoma TGLs = 4-17+18 ] |                           |                   |
| * Bone Marrow     |                                 | Hyperplasia               | Mild              |
| Coagulating Gland | Epithelium                      | Hyperplasia               | Moderate          |
|                   |                                 | Inflammation              | Marked            |
| * Heart           |                                 | Cardiomyopathy            | Mild              |
| * Kidney          | Pelvis                          | Inflammation              | Marked            |
|                   | Papilla                         | Necrosis                  | Marked            |
|                   |                                 | Nephropathy               | Mild              |
|                   |                                 | Pigmentation              | Minimal           |
| * Liver           |                                 | Eosinophilic Focus        |                   |
|                   |                                 | Fatty Change              | Diffuse, Minimal  |
|                   | Bile Duct                       | Fibrosis                  | Minimal           |
|                   | Bile Duct                       | Hyperplasia               | Minimal           |
|                   |                                 | Inflammation              | Minimal           |
| * Lung            |                                 | Osteosarcoma              | Metastatic (Bone) |
|                   | [ Osteosarcoma TGLs = 1-3+4 ]   |                           |                   |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANATOMY PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 77

TRT#: 3

SEX: Male

DAY ON TEST: 721

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603267

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
		Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Prostate	Epithelium	Hyperplasia	Moderate
		Inflammation	Marked
	[ Hyperplasia TGLs = 3-13+16 ]		
	[ Inflammation TGLs = 3-13+16 ]		
* Seminal Vesicle	Epithelium	Hyperplasia	Marked
		Inflammation	Moderate
Spinal Cord		Osteosarcoma	Metastatic (Bone)
* Spleen	Lymph Follic	Atrophy	Mild
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Stomach, Forestomach		Edema	Mild
		Inflammation	Minimal
	[ Edema TGLs = 5-6 ]		
* Stomach, Glandular		Inflammation	Mild
		Ulcer	Mild
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Atrophy	Moderate
* Urinary Bladder		Inflammation	Marked
		Ulcer	Marked
	[ Inflammation TGLs = 2-15 ]		

PRIMARY CAUSE OF DEATH - Bone Osteosarcoma

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 78

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603268

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 2-14 ]		
	[ Mixed Cell Focus TGLs = 2-14 ]		
* Lung		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Transit Epithe	Adenoma	
	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 78

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603268

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Olfactory Epi	Metaplasia Cyst	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland		Hyperplasia	Mild
* Spleen		Inflammation	Mild
* Testes	Bilateral, Interstit Cell	Hematopoietic Cell Proliferation	Minimal
[ Adenoma TGLs = 1-11 ]		Pigmentation	Minimal
* Thymus		Adenoma	
* Thyroid Gland		Atrophy	Moderate
	C Cell	Adenoma	
	Follicle	Cyst	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 79

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603269

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
Lymph Node	Mediastinal	Ectasia	Mild
	Mediastinal	Hyperplasia	Plasma Cell, Mild
	[ Ectasia TGLs = 1-14 ]		
	[ Hyperplasia TGLs = 1-14 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 79

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603269

ORGAN AND ACCOUNTABLE SITE STATUS

	Olfactory Epi Glands, Respirat Epith	Metaplasia Metaplasia	Respiratory, Mild Respiratory, Minimal
Note: Foreign material was present in the meatus.			
* Pituitary Gland [ Adenoma TGLs = 2-8 ]	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 80

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 530

**DOSE:** 6 MG/KG

**DISP:** Natural Death

**HISTO:** 0603270

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | * Adrenal Medulla           | Blood Vessel             | * Bone                     |
| * Bone Marrow             | * Brain                     | * Epididymis             | * Esophagus                |
| * Eye                     | * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Liver                     | * Lymph Node, Mesenteric | * Mammary Gland            |
| * Pancreas                | * Parathyroid Gland         | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Testes                  | * Thymus                    | * Urinary Bladder        | Zymbal's Gland             |

**MISSING**

- \* Lymph Node, Mandibular

**AUTO PRECLUDES DIAG.**

- \* Nose
- \* Thyroid Gland

**OBSERVATIONS**

- |  |                            |         |
|--|----------------------------|---------|
| * Heart  | Cardiomyopathy             | Mild    |
| * Kidney   | Mineralization             | Minimal |
|  | Nephropathy                | Minimal |
|  | Pigmentation               | Minimal |
| * Lung   | Foreign Body               |         |
|  | Inflammation               | Mild    |
| Note: Plant material was present in a focus of chronic inflammation. |                            |         |
| * Pituitary Gland  | Angiectasis                | Mild    |
|  | [ Angiectasis TGLs = 1-8 ] |         |
| * Preputial Gland  | Inflammation               | Minimal |
| * Spleen   | Pigmentation               | Minimal |
| * Trachea  | Inflammation               | Mild    |

**PRIMARY CAUSE OF DEATH** - UNCERTAIN

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 81

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603271

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Moderate
* Bone Marrow		Hyperplasia	Moderate
* Eye		Dysplasia	
	Note: Optic nerve found in standard section and on slide 9.		
	[ Dysplasia TGLs = 1-10 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
	[ Eosinophilic Focus TGLs = 3-15 ]		
* Lung		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 81

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603271

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Cyst	
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 4-8 ]		
* Preputial Gland		Inflammation	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Skin		Fibroma	
	[ Fibroma TGLs = 2-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 82

TRT#: 3

SEX: Male

DAY ON TEST: 713

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603272

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
Coagulating Gland		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney	Pelvis	Inflammation	Mild
	Papilla	Necrosis	Marked
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose	Transit Epithe	Adenoma	
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 82

TRT#: 3

SEX: Male

DAY ON TEST: 713

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603272

ORGAN AND ACCOUNTABLE SITE STATUS

* Prostate		Inflammation	Moderate
* Spleen	Lymph Follic	Atrophy	Moderate
		Pigmentation	Marked
* Testes	Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Marked
* Urinary Bladder		Hemorrhage	Moderate
		Inflammation	Mild
	[ Hemorrhage TGLs = 2-14 ]		
	[ Inflammation TGLs = 2-14 ]		

PRIMARY CAUSE OF DEATH - Kidney Papilla Necrosis

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 83

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603273

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Fatty Change	Diffuse, Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
Note: A foreign material was present in the meatuses.			
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 83

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603273

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 1-8 ]			
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[ Adenoma TGLs = 2-11 ]			
[ Hyperplasia TGLs = 2-11 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Carcinoma	
[ Carcinoma TGLs = 3-8 ]			

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 84

TRT#: 3

SEX: Male

DAY ON TEST: 62

DOSE: 6 MG/KG

DISP: Dosing Accident

HISTO: 0603274

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Kidney	* Liver	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Nose	* Pancreas
* Pituitary Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

* Lymph Node, Mandibular	* Parathyroid Gland
--------------------------	---------------------

**OBSERVATIONS**

* Heart	Cardiomyopathy	Minimal
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 85

TRT#: 3

SEX: Male

DAY ON TEST: 324

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603275

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Preputial Gland		Inflammation	Minimal
* Spleen	Lymph Follic	Atrophy	Mild
		Hemangiosarcoma	
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
	[ Hemangiosarcoma TGLs = 2-14 ]		
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Spleen Hemangiosarcoma

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 86

TRT#: 3

SEX: Male

DAY ON TEST: 721

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603276

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Pheochromocytoma Complex	
	[ Pheochromocytoma Complex TGLs = 1-14 ]		
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Inflammation	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 86

TRT#: 3

SEX: Male

DAY ON TEST: 721

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603276

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Interstit Cell	Pigmentation	Mild
	Interstit Cell	Adenoma	
[ Adenoma TGLs = 2-11 ]		Hyperplasia	Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Adrenal Medulla Pheochromocytoma Complex

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 87

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603277

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	

[ Adenoma TGLs = 1-8 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 87

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603277

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Moderate
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Minimal
* Testes	Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 88

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603278

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
	[ Alveolar/Bronchiolar Adenoma TGLs = 3-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Moderate
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 88

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603278

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 2-11 ]		
	[ Hyperplasia TGLs = 2-11 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 89

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603279

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Moderate
* Pituitary Gland	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 89

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603279

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Interstit Cell	Hyperplasia	Mild
	[ Hyperplasia TGLs = 1-11 ]		
* Thymus		Atrophy	Mild



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 90

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603280

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
	Artery	Inflammation	Mild
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
Note: A foreign material was present in the meatus.			
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 90

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603280

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 91

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603281

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Epididymis		Mesothelioma Malignant	
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

[ Adenoma TGLs = 3-8 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 91

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603281

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Skin		Keratoacanthoma	
	[ Keratoacanthoma TGLs = 1-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
		Mesothelioma Malignant	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 92

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 674

**DOSE:** 6 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603282

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Testes
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Fatty Change	Diffuse, Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 92

TRT#: 3

SEX: Male

DAY ON TEST: 674

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603282

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 93

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603283

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

* Lymph Node, Mandibular	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

Note: A foreign material was present in the meatus.

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 93

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603283

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 1-8 ]	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes [ Adenoma TGLs = 2-11 ]	Bilateral, Interstit Cell	Adenoma	
* Thyroid Gland	C Cell	Hyperplasia	Minimal



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 94

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603284

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	Lymph Node	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Marked
	[ Hyperplasia TGLs = 4-15 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 94

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603284

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pancreas	Olfactory Epi Acinus	Metaplasia Atrophy Cyst Infiltration Cellular	Respiratory, Minimal Moderate
* Pituitary Gland [ Adenoma TGLs = 3-8 ]	Pars Distalis	Adenoma	Mononuclear CI, Minimal
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Moderate
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Mild
* Testes [ Adenoma TGLs = 1-11 ]	Interstit Cell Interstit Cell	Adenoma Hyperplasia	Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland [ Carcinoma TGLs = 2-14 ]	Follicular Cel	Carcinoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 95

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603285

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
Note: A foreign material was present in the meatus.			
* Pancreas	Acinus	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 95

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603285

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild
* Skin		Basal Cell Carcinoma	
	[ Basal Cell Carcinoma TGLs = 1-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Moderate
Tongue		Squamous Cell Papilloma	
	[ Squamous Cell Papilloma TGLs = 3-15 ]		

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 96

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603286

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Cyst	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Cyst	
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 96

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603286

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 2-8 ]			
* Preputial Gland		Inflammation	Minimal
* Prostate	Epithelium	Hyperplasia	Minimal
		Inflammation	Mild
* Salivary Glands		Infiltration Cellular	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANATOMY PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 97

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 588

**DOSE:** 6 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603287

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Preputial Gland		Inflammation	Mild
* Spleen		Pigmentation	Mild
* Thymus		Atrophy	Marked

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 97

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 588

**DOSE:** 6 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603287

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 98

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603288

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
	[ Cardiomyopathy TGLs = 4-16 ]		
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Mild
* Pancreas	Acinus	Hyperplasia	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 98

TRT#: 3

SEX: Male

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603288

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 5-8 ]		
* Preputial Gland	Inflammation	Minimal
* Prostate	Inflammation	Minimal
* Skin	Fibroma	Multiple
[ Fibroma TGLs = 2,3-14+15 ]		
* Spleen	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma
[ Adenoma TGLs = 1-11 ]		
* Thymus	Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 99

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603289

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 99

TRT#: 3

SEX: Male

DAY ON TEST: 727

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603289

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 1-11 ]		
	[ Hyperplasia TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 100

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603290

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Harderian Gland		Inflammation	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 3,4-14+15 ]		
	[ Mixed Cell Focus TGLs = 5-16 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 100

TRT#: 3

SEX: Male

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603290

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Infiltration Cellular	Mononuclear CI, Mild
[ Hyperplasia TGLs = 2-8 ]		Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Prostate	Epithelium	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Carcinoma	
[ Carcinoma TGLs = 6-17 ]			

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 101

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603291

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 2-6+7+14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Acinus	Atrophy	Mild
		Infiltration Cellular	Mononuclear Cl, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 101

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603291

ORGAN AND ACCOUNTABLE SITE STATUS

	[ Hyperplasia TGLs = 3-8 ]		
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Trachea		Inflammation	Minimal



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 102

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603292

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 102

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603292

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 1-8 ]	Glands, Respirat Epith Pars Distalis	Inflammation Metaplasia Adenoma	Minimal Respiratory, Minimal
* Preputial Gland		Inflammation	Mild
* Spleen	Capsule	Hematopoietic Cell Proliferation	Mild
		Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Testes [ Adenoma TGLs = 2-11 ]	Bilateral, Interstit Cell	Adenoma	
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 103

TRT#: 5

SEX: Male

DAY ON TEST: 519

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603293

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Bone		Chondroma	
	[ Chondroma TGLs = 1-1 ]		
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 103

TRT#: 5

SEX: Male

DAY ON TEST: 519

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603293

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen	Hematopoietic Cell Proliferation	Mild
	Pigmentation	Mild
* Thymus	Atrophy	Mild

PRIMARY CAUSE OF DEATH - Bone Chondroma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 104

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603294

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Cyst	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Vacuolization Cytoplasmic	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 104

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603294

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Olfactory Epi	Metaplasia	Respiratory, Mild
* Pituitary Gland		Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Inflammation	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 105

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 538

**DOSE:** 20 MG/KG

**DISP:** Natural Death

**HISTO:** 0603295

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Medulla		Pheochromocytoma Malignant	
[ Pheochromocytoma Malignant TGLs = 2-14 ]			
* Eye			
Note: Both optic nerves missing.			
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Mild
		Pigmentation	Mild
* Liver			
Note: The liver discoloration observed at trim was attributed to autolysis.			
* Nose	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Preputial Gland		Inflammation	Minimal
* Spleen	Lymph Follic	Atrophy	Mild
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 105

TRT#: 5

SEX: Male

DAY ON TEST: 538

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603295

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Adenoma TGLs = 1-11 ]

\* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

- Adrenal Medulla Pheochromocytoma Malignant



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 106

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603296

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Cyst	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Vacuolization Cytoplasmic	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 106

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603296

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin		Basal Cell Adenoma	
	[ Basal Cell Adenoma TGLs = 2-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Testes		Adenoma	
	[ Adenoma TGLs = 1-11 ]		
	Bilateral, Interstit Cell		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 107

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603297

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Epididymis		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
	[ Nephropathy TGLs = 2-5 ]		
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 3-6+7+15 ]		
	[ Mixed Cell Focus TGLs = 3-6+7+15 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Mild
	[ Alveolar/Bronchiolar Adenoma TGLs = 4-14 ]		

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

**ANIMAL ID:** 107

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603297

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 5-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	Bilateral, C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 108

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603298

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Mild
* Liver		Eosinophilic Focus	
		Fatty Change	Diffuse, Moderate
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
Note: The fatty change was characterized by a fine vacuolization of individual or small clusters hepatocytes throughout the liver. [ Fatty Change TGLs = 1-6+7+14 ]			
* Lung	Alveolar Epith	Hyperplasia	Marked
		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Olfactory Epi	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 108

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603298

ORGAN AND ACCOUNTABLE SITE STATUS

	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 109

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603299

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Cyst	
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 109

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603299

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLs = 1-11 ]

\* Thymus

Atrophy

Mild

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 110

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603300

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Olfactory Epi	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 110

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603300

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith	Metaplasia Cyst	Respiratory, Minimal
* Preputial Gland		Infiltration Cellular	Mononuclear CI, Minimal
* Prostate		Inflammation	Minimal
* Skin		Inflammation	Minimal
	[ Fibroma TGLs = 1-14 ]	Fibroma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 111

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603301

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Bone Marrow		Hyperplasia	Minimal
* Epididymis		Mesothelioma Malignant	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
* Liver	[ Nephropathy TGLs = 2-5 ]	Clear Cell Focus	
	Bile Duct	Cyst	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Glands, Transit Epithe	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 111

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603301

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith Acinus	Metaplasia Atrophy	Respiratory, Minimal Minimal
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Moderate
* Testes [ Adenoma TGLs = 1-11 ]	Bilateral, Interstit Cell	Adenoma	
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 112

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603302

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatocellular Carcinoma	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
	[ Hepatocellular Carcinoma TGLs = 2-15 ]		
* Lung		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 112

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603302

ORGAN AND ACCOUNTABLE SITE STATUS

		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Carcinoma	
	[ Carcinoma TGLs = 1-14 ]		

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 113

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 661

**DOSE:** 20 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603303

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2,3-11 ]		
* Thymus		Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 113

TRT#: 5

SEX: Male

DAY ON TEST: 661

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603303

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Thyroid Gland	C Cell	Hyperplasia	Minimal
Zymbal's Gland		Carcinoma	
[ Carcinoma TGLs = 1-14 ]			

PRIMARY CAUSE OF DEATH - Zymbal's Gland Carcinoma



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 114

TRT#: 5

SEX: Male

DAY ON TEST: 612

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603304

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hemorrhage	Mild
		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Skin		Fibroma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 114

TRT#: 5

SEX: Male

DAY ON TEST: 612

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603304

ORGAN AND ACCOUNTABLE SITE STATUS

[ Fibroma TGLs = 2-14 ]

\* Spleen

Hematopoietic Cell Proliferation

Mild

Pigmentation

Minimal

\* Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLs = 1,3-11 ]

\* Thymus

Atrophy

Mild

Tooth

Peridont Tiss

Inflammation

Mild

PRIMARY CAUSE OF DEATH

- Skin Fibroma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 115

TRT#: 5

SEX: Male

DAY ON TEST: 616

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603305

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

* Lymph Node, Mandibular	* Thymus
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**OBSERVATIONS**

* Brain		Astrocytoma Malignant	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Degeneration	Cystic, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Transit Epithe	Dilatation	Mild
	Glands, Transit Epithe	Foreign Body	
		Hyperplasia	Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 115

TRT#: 5

SEX: Male

DAY ON TEST: 616

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603305

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Cyst	
* Spleen		Inflammation	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Brain Astrocytoma Malignant

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 116

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603306

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Transit Epithe	Adenoma	
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
* Pituitary Gland	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Pars Distalis	Adenoma	

[ Adenoma TGLs = 1-8 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 116

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603306

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 117

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603307

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung		Carcinoma	Metastatic (Tissue Nos)
		Inflammation	Mild
	[ Carcinoma TGLs = 4-15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 117

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603307

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith Acinus	Inflammation Metaplasia Atrophy Cyst	Minimal Respiratory, Minimal Mild
* Pituitary Gland [ Adenoma TGLs = 3-8 ]	Pars Distalis	Infiltration Cellular Adenoma	Mononuclear CI, Minimal
* Preputial Gland		Inflammation	Minimal
* Prostate	Epithelium	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
* Testes	Interstit Cell Interstit Cell	Pigmentation Adenoma	Moderate
[ Adenoma TGLs = 2-11 ]		Hyperplasia	Minimal
* Thymus Tissue NOS		Atrophy Carcinoma	Mild Metastatic (Zymbal'S Gland)
[ Carcinoma TGLs = 5-16 ]			
Zymbal's Gland [ Carcinoma TGLs = 1-14 ]		Carcinoma	



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 118

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603308

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

* Lymph Node, Mandibular	* Mammary Gland
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**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Pheochromocytoma Malignant	
	[ Pheochromocytoma Malignant TGLs = 2-14 ]		
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
		Inflammation	Minimal
		Pheochromocytoma Malignant	Metastatic (Adrenal Medulla)
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 118

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603308

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Skin		Keratoacanthoma	Multiple
	[ Keratoacanthoma TGLs = 3,4-15+16 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 119

TRT#: 5

SEX: Male

DAY ON TEST: 654

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603309

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Epididymis		Mesothelioma Malignant	
* Eye			
Note: Optic nerves on slide 9.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
* Liver		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 119

TRT#: 5

SEX: Male

DAY ON TEST: 654

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603309

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Bilateral, Interstit Cell	Pigmentation Adenoma Mesothelioma Malignant	Mild
[ Adenoma TGLs = 1-11 ]			
* Thyroid Gland	C Cell	Hyperplasia	Moderate

PRIMARY CAUSE OF DEATH - Epididymis Mesothelioma Malignant

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 120

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603310

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Fatty Change	Diffuse, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus		
	TGLs = 2-6+7+14 ]		
	[ Mixed Cell Focus		
	TGLs = 2-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 120

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603310

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1,3-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tooth		Dysplasia	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 121

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603311

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | Blood Vessel             | * Bone                     | * Bone Marrow             |
| * Brain                     | * Epididymis             | * Esophagus                | * Eye                     |
| * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Mammary Gland          | * Parathyroid Gland        | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                     | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |
| Zymbal's Gland              |                          |                            |                           |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                          |                        |                               |                      |
|--------------------------|------------------------|-------------------------------|----------------------|
| * Adrenal Medulla        |                        | Pheochromocytoma Benign       |                      |
| * Heart                  |                        | Cardiomyopathy                | Mild                 |
| * Kidney                 |                        | Mineralization                | Minimal              |
|                          |                        | Nephropathy                   | Marked               |
|                          |                        | Pigmentation                  | Minimal              |
| * Liver                  |                        | Clear Cell Focus              |                      |
|                          |                        | Eosinophilic Focus            |                      |
|                          | Bile Duct              | Fibrosis                      | Minimal              |
|                          | Bile Duct              | Hyperplasia                   | Mild                 |
|                          |                        | Inflammation                  | Minimal              |
|                          |                        | Mixed Cell Focus              |                      |
| * Lymph Node, Mesenteric |                        | Infiltration Cellular         | Histiocyte, Mild     |
| * Nose                   | Respirat Epith         | Accumulation, Hyaline Droplet | Minimal              |
|                          | Olfactory Epi          | Accumulation, Hyaline Droplet | Mild                 |
|                          | Glands, Respirat Epith | Dilatation                    | Minimal              |
|                          | Respirat Epith         | Hyperplasia                   | Mild                 |
|                          | Olfactory Epi          | Metaplasia                    | Respiratory, Minimal |
|                          | Glands, Respirat Epith | Metaplasia                    | Respiratory, Minimal |
| * Pancreas               | Acinus                 | Atrophy                       | Minimal              |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 121

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603311

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland [ Adenoma TGLs = 1-8 ]	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Testes [ Adenoma TGLs = 2-11 ]	Bilateral, Interstit Cell	Adenoma	
* Thymus		Atrophy	Mild



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 122

TRT#: 5

SEX: Male

DAY ON TEST: 626

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603312

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | Blood Vessel                | * Bone                   | * Brain                    |
| * Esophagus               | * Eye                       | * Harderian Gland        | * Intestine Large, Cecum   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Mammary Gland          | * Parathyroid Gland        |
| * Pituitary Gland         | * Salivary Glands           | * Skin                   | * Stomach, Forestomach     |
| * Stomach, Glandular      | * Thymus                    | * Trachea                | * Urinary Bladder          |
| Zymbal's Gland            |                             |                          |                            |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                          |  |                                  |                  |
|--------------------------|--|----------------------------------|------------------|
| * Adrenal Medulla        |  | Hyperplasia                      | Minimal          |
| * Bone Marrow            |  | Leukemia Mononuclear             |                  |
| Coagulating Gland        |  | Mesothelioma Malignant           |                  |
| * Epididymis             |  | Mesothelioma Malignant           |                  |
| * Heart                  |  | Cardiomyopathy                   | Minimal          |
|                          |  | Thrombosis                       | Moderate         |
| * Intestine Large, Colon |  | Mesothelioma Malignant           |                  |
| * Kidney                 |  | Mineralization                   | Minimal          |
|                          |  | Nephropathy                      | Minimal          |
|                          |  | Pigmentation                     | Moderate         |
| * Liver                  | Bile Duct                              | Fibrosis                         | Minimal          |
|                          |  | Hematopoietic Cell Proliferation | Minimal          |
|                          | Bile Duct                              | Hyperplasia                      | Mild             |
|                          | Hepatocyte                             | Hypertrophy                      | Moderate         |
|                          |  | Inflammation                     | Minimal          |
|                          | Hepatocyte                             | Necrosis                         | Minimal          |
| * Lymph Node, Mesenteric |  | Infiltration Cellular            | Histiocyte, Mild |
| Mesentery                |  | Mesothelioma Malignant           |                  |
|                          | [ Mesothelioma Malignant TGLs = 1-14 ] |                                  |                  |
| * Nose                   | Respirat Epith                         | Accumulation, Hyaline Droplet    | Minimal          |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 122

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 626

**DOSE:** 20 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603312

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Mesothelioma Malignant	
* Preputial Gland		Inflammation	Mild
* Prostate		Mesothelioma Malignant	
* Seminal Vesicle		Mesothelioma Malignant	
* Spleen		Hematopoietic Cell Proliferation	Marked
		Leukemia Mononuclear	
* Testes	Bilateral, Interstit Cell	Adenoma	
		Mesothelioma Malignant	
	[ Adenoma TGLs = 3-11 ]		
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Epididymis Mesothelioma Malignant

CONTRIBUTORY CAUSE OF DEATH - Heart Thrombosis

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 123

TRT#: 5

SEX: Male

DAY ON TEST: 581

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603313

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Fatty Change	Diffuse, Mild
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Oval Cell	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
Lymph Node	Mediastinal	Ectasia	Mild
	Mediastinal	Hyperplasia	Lymphoid, Mild
	[ Ectasia TGLs = 2-14 ]		
	[ Hyperplasia TGLs = 2-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 123

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 581

**DOSE:** 20 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603313

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal
		Lipomatosis	Minimal
	[ Lipomatosis TGLs = 1-6 ]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Pigmentation	Moderate
* Testes	Interstit Cell	Adenoma	
	[ Adenoma TGLs = 4-11 ]		
* Thymus		Atrophy	Marked
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 124

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603314

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Mild
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 124

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603314

ORGAN AND ACCOUNTABLE SITE STATUS

		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 125

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603315

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
	[ Clear Cell Focus TGLs = 1,2-14+15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 125

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603315

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Mild
[ Cyst TGLs = 4-8 ]			
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 3-11 ]			
* Thymus		Atrophy	Moderate



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 126

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603316

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
* Eye	Retina	Atrophy	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear Cl, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 126

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603316

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Mild
* Spleen	Red Pulp	Atrophy	Moderate
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
	[ Atrophy TGLs = 2-14 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 127

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603317

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

* Lymph Node, Mandibular	* Parathyroid Gland
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**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Small, Ileum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear Cl, Minimal
* Pituitary Gland		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 127

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603317

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 128

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603318

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 128

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603318

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

C Cell

Hyperplasia

Minimal

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 129

TRT#: 5

SEX: Male

DAY ON TEST: 645

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603319

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pituitary Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland	* Thymus
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OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Malignant	
	[ Pheochromocytoma Malignant TGLs = 3-15 ]		
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
	[ Eosinophilic Focus TGLs = 2-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 129

TRT#: 5

SEX: Male

DAY ON TEST: 645

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603319

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Testes	Interstit Cell	Pigmentation	Mild
	Interstit Cell	Adenoma	
		Hyperplasia	Mild
[ Adenoma TGLs = 1-11 ]			

PRIMARY CAUSE OF DEATH - Adrenal Medulla Pheochromocytoma Malignant



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 130

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603320

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lung	* Mammary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

* Lymph Node, Mandibular	* Parathyroid Gland
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**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 130

TRT#: 5

SEX: Male

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603320

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith Acinus	Metaplasia Atrophy Cyst	Respiratory, Minimal Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 131

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603321

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Thymus
* Trachea	Zymbal's Gland		

**MISSING**

* Lymph Node, Mandibular	* Parathyroid Gland
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**OBSERVATIONS**

* Bone Marrow		Myelofibrosis	Mild
* Heart		Cardiomyopathy	Mild
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Moderate
	Pelvis	Inflammation	Mild
		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
	[ Nephropathy TGLs = 2-5 ]		
* Liver		Eosinophilic Focus	
		Fatty Change	Diffuse, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
* Nose	Olfactory Epi	Degeneration	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
		Inflammation	Mild
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 131

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603321

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Marked
* Spleen		Pigmentation	Moderate
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Moderate
		Ulcer	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thyroid Gland	C Cell	Hyperplasia	Mild
* Urinary Bladder		Inflammation	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 132

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603322

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Minimal
* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 132

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603322

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 2-8 ]			
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Mild
* Skin		Fibroma	
[ Fibroma TGLs = 1-14 ]			
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Mild
[ Adenoma TGLs = 3-11 ]			
[ Hyperplasia TGLs = 3-11 ]			
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 133

TRT#: 5

SEX: Male

DAY ON TEST: 707

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603323

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Marked
	[ Nephropathy TGLs = 3-5 ]		
* Liver		Eosinophilic Focus	
		Fatty Change	Diffuse, Minimal
		Inflammation	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Skin	Sebaceous GI	Adenoma	
		Keratoacanthoma	
	[ Adenoma TGLs = 1-14 ]		
	[ Keratoacanthoma TGLs = 2-15 ]		
* Spleen		Pigmentation	Moderate
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 133

TRT#: 5

SEX: Male

DAY ON TEST: 707

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603323

ORGAN AND ACCOUNTABLE SITE STATUS

		Inflammation	Mild
		Ulcer	Moderate
[ Ulcer TGLs = 5-14 ]			
* Stomach, Glandular		Inflammation	Minimal
		Ulcer	Mild
* Testes	Interstit Cell	Adenoma	
		Mineralization	Mild
[ Adenoma TGLs = 4-11 ]			
[ Mineralization TGLs = 4-11 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
PRIMARY CAUSE OF DEATH	- Kidney Nephropathy		



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 134

TRT#: 5

SEX: Male

DAY ON TEST: 680

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603324

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Intestine Small, Duodenum		Inflammation	Chronic Active, Mild
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
	[ Nephropathy TGLs = 2-5 ]		
* Liver	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
* Mammary Gland		Hyperplasia	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Moderate
		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 134

TRT#: 5

SEX: Male

DAY ON TEST: 680

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603324

**ORGAN AND ACCOUNTABLE SITE STATUS**

Olfactory Epi  
 Glands, Respirat Epith

Metaplasia  
 Metaplasia

Respiratory, Minimal  
 Respiratory, Minimal

Note: A foreign material was present in the meatus.

\* Pancreas

Cyst  
 Infiltration Cellular

Mononuclear CI, Minimal  
 Diffuse, Mild

\* Parathyroid Gland

Hyperplasia  
 Hyperplasia

Moderate

\* Pituitary Gland

Pars Distalis

[ Hyperplasia TGLs = 3-8 ]

\* Preputial Gland

Inflammation

Minimal

\* Prostate

Inflammation

Moderate

\* Spleen

Pigmentation

Moderate

\* Stomach, Forestomach

Hyperplasia

Squamous, Mild

Inflammation

Mild

Ulcer

Moderate

[ Ulcer TGLs = 4-14 ]

\* Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLs = 1-11 ]

\* Thymus

Atrophy

Moderate

\* Thyroid Gland

C Cell

Adenoma

Follicular Cel

Adenoma

PRIMARY CAUSE OF DEATH

- Kidney Nephropathy

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 135

TRT#: 5

SEX: Male

DAY ON TEST: 712

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603325

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lung	* Mammary Gland	* Pancreas
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Cyst	
	Pelvis, Transit Epithe	Hyperplasia	Mild
		Mineralization	Mild
		Nephropathy	Marked
	[ Cyst TGLs = 4-5 ]		
	[ Nephropathy TGLs = 3-5 ]		
* Liver	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	Hepatocyte	Necrosis	Moderate
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 135

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 712

**DOSE:** 20 MG/KG

**DISP:** Natural Death

**HISTO:** 0603325

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
* Parathyroid Gland		Hyperplasia	Diffuse, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Preputial Gland		Inflammation	Minimal
* Spleen	Lymph Follic	Atrophy	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Moderate
		Ulcer	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Marked

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

CONTRIBUTORY CAUSE OF DEATH - Liver Hepatocyte Necrosis

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 136

TRT#: 5

SEX: Male

DAY ON TEST: 237

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603326

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | Blood Vessel               | * Bone                    |
| * Brain                     | * Epididymis             | * Esophagus                | * Eye                     |
| * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Mammary Gland             | * Pituitary Gland        | * Preputial Gland          | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                     | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Testes                 | * Thyroid Gland            | * Trachea                 |
| * Urinary Bladder           |                          |                            |                           |

**MISSING**

- |                          |                     |
|--------------------------|---------------------|
| * Lymph Node, Mandibular | * Parathyroid Gland |
|--------------------------|---------------------|

**OBSERVATIONS**

- |                          |                        |                                  |                         |
|--------------------------|------------------------|----------------------------------|-------------------------|
| * Bone Marrow            |                        | Hyperplasia                      | Mild                    |
| * Heart                  |                        | Cardiomyopathy                   | Minimal                 |
| * Kidney                 |                        | Mineralization                   | Minimal                 |
|                          |                        | Nephropathy                      | Minimal                 |
| * Liver                  |                        | Inflammation                     | Minimal                 |
| * Lung                   | Alveolus               | Infiltration Cellular            | Histiocyte, Minimal     |
| * Lymph Node, Mesenteric |                        | Infiltration Cellular            | Histiocyte, Minimal     |
| * Nose                   | Respirat Epith         | Accumulation, Hyaline Droplet    | Minimal                 |
|                          | Olfactory Epi          | Accumulation, Hyaline Droplet    | Mild                    |
|                          | Respirat Epith         | Hyperplasia                      | Minimal                 |
|                          | Glands, Transit Epithe | Hyperplasia                      | Minimal                 |
|                          |                        | Inflammation                     | Minimal                 |
| * Pancreas               | Acinus                 | Atrophy                          | Minimal                 |
|                          |                        | Infiltration Cellular            | Mononuclear Cl, Minimal |
| * Spleen                 |                        | Hematopoietic Cell Proliferation | Mild                    |
|                          |                        | Pigmentation                     | Mild                    |
| * Thymus                 |                        | Atrophy                          | Moderate                |
| Zymbal's Gland           |                        | Hyperplasia                      | Minimal                 |

PRIMARY CAUSE OF DEATH - UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 137

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603327

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Adrenal Medulla		Pheochromocytoma Benign	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Mild
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 4-16 ]		
	[ Mixed Cell Focus TGLs = 3-15 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Transit Epithe	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Minimal
* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Acinus	Atrophy	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 137

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603327

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland		Hyperplasia	Mild
* Skin		Inflammation	Minimal
	[ Basal Cell Carcinoma TGLs = 2-14 ]	Basal Cell Carcinoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 138

TRT#: 5

SEX: Male

DAY ON TEST: 147

DOSE: 20 MG/KG

DISP: Dosing Accident

HISTO: 0603328

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Liver	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Preputial Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Esophagus		Perforation	
	[ Perforation TGLs = 1-14 ]		
* Heart		Cardiomyopathy	Minimal
* Lung	Alveolus	Foreign Body	
	Note: A yellowish foreign material was present in alveoli.		
* Nose	Glands, Transit Epithe	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 139

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 686

**DOSE:** 20 MG/KG

**DISP:** Natural Death

**HISTO:** 0603329

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Moderate
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 139

TRT#: 5

SEX: Male

DAY ON TEST: 686

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603329

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Moderate
		Ulcer	Mild
	[ Hyperplasia TGLs = 2-6 ]		
	[ Inflammation TGLs = 2-6 ]		
* Testes	Interstit Cell	Adenoma	
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 140

TRT#: 5

SEX: Male

DAY ON TEST: 643

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603330

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Eye			
Note: Optic nerves on slide 9.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
Lymph Node	Mediastinal	Ectasia	Moderate
[ Ectasia TGLs = 3-15 ]			
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Transit Epithe	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 140

TRT#: 5

SEX: Male

DAY ON TEST: 643

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603330

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith Acinus	Metaplasia Atrophy Infiltration Cellular	Respiratory, Minimal Mild Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Minimal
* Skin		Sarcoma	
[ Sarcoma TGLs = 1-14 ]			
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Moderate Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 2-11 ]			
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Skin Sarcoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 141

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 129

**DOSE:** 20 MG/KG

**DISP:** Natural Death

**HISTO:** 0603331

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Testes	* Thyroid Gland
Tissue NOS	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Esophagus		Foreign Body	
Note: Food material was present in the esophagus which correlated with the gross finding of food in the larynx and esophagus. This suggests asphyxiation as the COD.			
	[ Foreign Body TGLs = 1-14 ]		
* Heart		Cardiomyopathy	Mild
* Intestine Large, Colon		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Lung		Congestion	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
	[ Congestion TGLs = 2-3+4 ]		
* Nose		Foreign Body	
	Glands, Transit Epithe	Hyperplasia	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Spleen		Pigmentation	Minimal
* Thymus		Atrophy	Mild

**PRIMARY CAUSE OF DEATH** - Esophagus Foreign Body

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 142

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603332

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
		Nephropathy	Marked
	[ Nephropathy TGLs = 2-5 ]		
* Liver		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Mammary Gland		Hyperplasia	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Transit Epithe	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 142

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603332

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 3-14 ]	Glands, Respirat Epith Pars Distalis	Inflammation Metaplasia Adenoma	Minimal Respiratory, Minimal
* Prostate	Epithelium	Hyperplasia Inflammation	Mild Mild
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Mild
* Stomach, Glandular [ Inflammation TGLs = 4-15 ] [ Ulcer TGLs = 4-15 ]		Inflammation Ulcer	Mild Mild
* Testes [ Adenoma TGLs = 1-11 ]	Bilateral, Interstit Cell	Adenoma	
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 143

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603333

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung	* Mammary Gland
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Adenoma	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Oval Cell	Hyperplasia	Mild
		Leukemia Mononuclear	
	[ Leukemia Mononuclear	TGLs = 4-6+7 ]	
	Lymph Node	Pancreatic	
	[ Leukemia Mononuclear	TGLs = 5-15 ]	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
		Leukemia Mononuclear	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 143

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603333

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-14 ]		
* Preputial Gland		Inflammation	Minimal
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 3-5 ]		
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 144

TRT#: 5

SEX: Male

DAY ON TEST: 233

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603334

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | Blood Vessel               | * Bone                    | * Brain                     |
| * Epididymis             | * Esophagus                | * Eye                     | * Harderian Gland           |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             |
| * Pancreas               | * Parathyroid Gland        | * Pituitary Gland         | * Preputial Gland           |
| * Prostate               | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Testes                  | * Thyroid Gland             |
| * Trachea                | Zymbal's Gland             |                           |                             |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                          |                        |                           |                      |
|--------------------------|------------------------|---------------------------|----------------------|
| * Adrenal Cortex         |                        | Vacuolization Cytoplasmic | Minimal              |
| * Bone Marrow            |                        | Hyperplasia               | Mild                 |
| * Heart                  |                        | Cardiomyopathy            | Minimal              |
| * Kidney                 |                        | Mineralization            | Minimal              |
| * Liver                  |                        | Inflammation              | Minimal              |
| * Lung                   | Alveolus               | Infiltration Cellular     | Histiocyte, Minimal  |
|                          |                        | Inflammation              | Minimal              |
| * Lymph Node, Mesenteric |                        | Infiltration Cellular     | Histiocyte, Minimal  |
| * Nose                   | Glands, Transit Epithe | Hyperplasia               | Mild                 |
|                          | Respirat Epith         | Hyperplasia               | Minimal              |
|                          | Glands, Respirat Epith | Metaplasia                | Respiratory, Minimal |
| * Spleen                 |                        | Pigmentation              | Mild                 |
| * Thymus                 |                        | Atrophy                   | Moderate             |
| * Urinary Bladder        |                        | Inflammation              | Minimal              |

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 145

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603335

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Lung
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Mild
* Islets, Pancreatic		Hyperplasia	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear Cl, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 145

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603335

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 146

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603336

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | Blood Vessel                | * Bone                   | * Esophagus                |
| * Eye                     | * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mesenteric | * Mammary Gland            |
| * Parathyroid Gland       | * Pituitary Gland           | * Prostate               | * Salivary Glands          |
| * Seminal Vesicle         | * Stomach, Forestomach      | * Stomach, Glandular     | * Trachea                  |
| * Urinary Bladder         | Zymbal's Gland              |                          |                            |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |   |                        |                               |                         |
|---|------------------------|-------------------------------|-------------------------|
| * Adrenal Medulla                           |                        | Pheochromocytoma Benign       |                         |
| * Bone Marrow                               |                        | Hyperplasia                   | Mild                    |
| * Brain                                     |                        | Granular Cell Tumor Malignant |                         |
| * Epididymis                                |                        | Inflammation                  | Mild                    |
| * Heart                                     |                        | Cardiomyopathy                | Minimal                 |
| * Kidney                                    |                        | Mineralization                | Minimal                 |
|   |                        | Nephropathy                   | Mild                    |
|   |                        | Pigmentation                  | Minimal                 |
| * Liver                                     |                        | Clear Cell Focus              |                         |
|   |                        | Eosinophilic Focus            |                         |
|   | Bile Duct              | Fibrosis                      | Minimal                 |
|   | Bile Duct              | Hyperplasia                   | Mild                    |
|   |                        | Inflammation                  | Minimal                 |
| * Nose                                      | Olfactory Epi          | Accumulation, Hyaline Droplet | Minimal                 |
|   |                        | Inflammation                  | Mild                    |
|   | Glands, Respirat Epith | Metaplasia                    | Respiratory, Minimal    |
| Note: A foreign material was in the meatus. |                        |                               |                         |
| * Pancreas                                  |                        | Cyst                          |                         |
|   | Acinus                 | Hyperplasia                   | Moderate                |
|   |                        | Infiltration Cellular         | Mononuclear CI, Minimal |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 146

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603336

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland		Inflammation	Mild
* Skin		Basal Cell Carcinoma	
	[ Basal Cell Carcinoma TGLs = 1-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 147

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603337

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 7,8,9-6+7+17+19 ]		
	[ Eosinophilic Focus TGLs = 8-7+18 ]		
	[ Mixed Cell Focus TGLs = 7-17 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 147

TRT#: 5

SEX: Male

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603337

ORGAN AND ACCOUNTABLE SITE STATUS

* Preputial Gland	Glands, Respirat Epith	Metaplasia Adenoma Inflammation	Respiratory, Minimal  Moderate
[ Adenoma TGLs = 1-12 ]			
* Prostate		Adenoma Inflammation	Mild
* Skin	Sebaceous GI	Adenoma Basal Cell Carcinoma Fibroma Lipoma	
[ Adenoma TGLs = 3-14 ]			
[ Basal Cell Carcinoma TGLs = 4-15 ]			
[ Fibroma TGLs = 2-20 ]			
[ Lipoma TGLs = 5-16 ]			
* Spleen	Capsule	Fibrosis Hematopoietic Cell Proliferation Pigmentation	Mild Minimal Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 6-11 ]			
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 148

TRT#: 5

SEX: Male

DAY ON TEST: 688

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603338

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Minimal
	[ Hepatocellular Adenoma TGLs = 3-16 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 2-15 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Transit Epithe	Adenoma	
	Glands, Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
* Preputial Gland		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 148

TRT#: 5

SEX: Male

DAY ON TEST: 688

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603338

ORGAN AND ACCOUNTABLE SITE STATUS

* Skin		Liposarcoma	
	[ Liposarcoma TGLs = 1-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Testes		Adenoma	
	Interstit Cell	Hyperplasia	Mild
	Interstit Cell		
	[ Adenoma TGLs = 4-11 ]		
	[ Hyperplasia TGLs = 4-11 ]		
* Thymus		Atrophy	Moderate
* Thyroid Gland		Adenoma	
	C Cell		

PRIMARY CAUSE OF DEATH - Skin Liposarcoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 149

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603339

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Preputial Gland		Inflammation	Minimal
* Skin		Fibroma	
	[ Fibroma TGLs = 2-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

---

**ANIMAL ID:** 149

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603339

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Testes	Interstit Cell	Pigmentation	Mild
[ Adenoma TGLs = 1-11 ]		Adenoma	
* Thymus		Atrophy	Mild

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 150

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603340

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 150

TRT#: 5

SEX: Male

DAY ON TEST: 727

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603340

ORGAN AND ACCOUNTABLE SITE STATUS

* Testes	Interstit Cell	Pigmentation	Mild
	Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]		Hyperplasia	Moderate
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 151

TRT#: 7

SEX: Male

DAY ON TEST: 582

DOSE: 60 MG/KG

DISP: Dosing Accident

HISTO: 0603341

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Esophagus	Periesoph Tiss	Inflammation	Moderate
	[ Perforation TGLs = 1-15 ]	Perforation	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
		Fatty Change	Focal, Mild
	Bile Duct	Fibrosis	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Moderate
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Fatty Change TGLs = 4-6+7+14 ]		
	[ Hepatodiaphragmatic Nodule TGLs = 3-15 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 151

TRT#: 7

SEX: Male

DAY ON TEST: 582

DOSE: 60 MG/KG

DISP: Dosing Accident

HISTO: 0603341

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric	Alveolus	Inflammation	Suppurative, Mild
* Nose	Respirat Epith	Infiltration Cellular	Histiocyte, Minimal
	Transit Epithe	Accumulation, Hyaline Droplet	Minimal
	Nerve	Adenoma	
	Olfactory Epi	Atrophy	Mild
	Glands, Respirat Epith	Degeneration	Moderate
	Glands, Olfactory Epi	Dilatation	Mild
		Dilatation	Moderate
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Mild
* Spleen		Congestion	Minimal
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Moderate
* Trachea	Peritrach Tiss	Inflammation	Moderate

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 152

TRT#: 7

SEX: Male

DAY ON TEST: 626

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603342

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | * Bone                    | * Brain                     |
| * Epididymis             | * Esophagus                | * Eye                     | * Harderian Gland           |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             |
| * Pancreas               | * Parathyroid Gland        | * Pituitary Gland         | * Preputial Gland           |
| * Prostate               | * Salivary Glands          | * Seminal Vesicle         | * Skin                      |
| * Stomach, Forestomach   | * Testes                   | * Thyroid Gland           | * Trachea                   |
| Zymbal's Gland           |                            |                           |                             |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                                  |           |                       |                     |
|----------------------------------|-----------|-----------------------|---------------------|
| Blood Vessel                     | Aorta     | Mineralization        | Mild                |
| * Bone Marrow                    |           | Hyperplasia           | Moderate            |
| * Eye                            |           |                       |                     |
| Note: Both optic nerves missing. |           |                       |                     |
| * Heart                          |           | Cardiomyopathy        | Mild                |
|                                  |           | Mineralization        | Minimal             |
| * Kidney                         | Pelvis    | Dilatation            | Mild                |
|                                  |           | Mineralization        | Moderate            |
|                                  |           | Nephropathy           | Marked              |
|                                  |           |                       |                     |
|                                  |           |                       |                     |
| * Liver                          |           | Degeneration          | Cystic, Minimal     |
|                                  |           | Eosinophilic Focus    |                     |
|                                  | Bile Duct | Fibrosis              | Minimal             |
|                                  | Bile Duct | Hyperplasia           | Minimal             |
|                                  |           | Inflammation          | Minimal             |
| * Lung                           | Alveolus  | Infiltration Cellular | Histiocyte, Minimal |
|                                  |           | Mineralization        | Minimal             |
| * Lymph Node, Mesenteric         |           | Infiltration Cellular | Histiocyte, Minimal |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 152

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 626

**DOSE:** 60 MG/KG

**DISP:** Natural Death

**HISTO:** 0603342

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Moderate
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Glands, Olfactory Epi	Necrosis	Moderate
* Spleen		Pigmentation	Minimal
* Stomach, Glandular		Mineralization	Mild
* Thymus		Atrophy	Mild
* Urinary Bladder		Hemorrhage	Moderate
		Inflammation	Moderate
	Transit Epithe	Necrosis	Marked

[ Hemorrhage TGLs = 1-5 ]

PRIMARY CAUSE OF DEATH - Kidney Nephropathy  
 CONTRIBUTORY CAUSE OF DEATH - Urinary Bladder Transit Epithe Necrosis

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 153

TRT#: 7

SEX: Male

DAY ON TEST: 727

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603343

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
	[ Clear Cell Focus TGLs = 3-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 153

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603343

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Respirat Epith	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Congestion	Mild
		Hematopoietic Cell Proliferation	Mild
		Inflammation	Suppurative, Minimal
		Pigmentation	Minimal
	[ Congestion TGLs = 2-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 154

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603344

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
* Bone Marrow		Hemorrhage	Mild
		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 3-6+7 ]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 154

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603344

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Mild
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Congestion TGLs = 2-5 ]		
	[ Fibrosis TGLs = 2-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Adenoma	
	Follicular Cel	Carcinoma	
	C Cell	Hyperplasia	Minimal
	[ Carcinoma TGLs = 4-14 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 155

TRT#: 7

SEX: Male

DAY ON TEST: 727

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603345

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | Blood Vessel               | * Bone                    |
| * Brain                     | * Epididymis             | * Esophagus                | * Eye                     |
| * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Lung                    |
| * Lymph Node, Mesenteric    | * Mammary Gland          | * Parathyroid Gland        | * Prostate                |
| * Salivary Glands           | * Seminal Vesicle        | * Skin                     | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thyroid Gland          | * Trachea                  | * Urinary Bladder         |
| Zymbal's Gland              |                          |                            |                           |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                      |                                  |                    |          |
|----------------------|----------------------------------|--------------------|----------|
| * Bone Marrow        |                                  | Hyperplasia        | Moderate |
| * Heart              |                                  | Cardiomyopathy     | Mild     |
| * Islets, Pancreatic |                                  | Adenoma            |          |
| * Kidney             |                                  | Mineralization     | Minimal  |
|                      |                                  | Nephropathy        | Mild     |
|                      |                                  | Pigmentation       | Mild     |
| * Liver              |                                  | Clear Cell Focus   |          |
|                      |                                  | Eosinophilic Focus |          |
|                      | Bile Duct                        | Fibrosis           | Mild     |
|                      | Bile Duct                        | Hyperplasia        | Mild     |
|                      | Hepatocyte                       | Hypertrophy        | Minimal  |
|                      |                                  | Inflammation       | Minimal  |
|                      |                                  | Mixed Cell Focus   |          |
|                      | [ Clear Cell Focus TGLs = 3-14 ] |                    |          |
| Lymph Node           | Mediastinal                      | Ectasia            | Moderate |
|                      | [ Ectasia TGLs = 4-14 ]          |                    |          |
| * Nose               | Olfactory Epi                    | Degeneration       | Mild     |
|                      | Glands, Respirat Epith           | Dilatation         | Mild     |
|                      | Glands, Olfactory Epi            | Dilatation         | Mild     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 155

TRT#: 7

SEX: Male

DAY ON TEST: 727

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603345

ORGAN AND ACCOUNTABLE SITE STATUS

	Transit Epithe	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Minimal
	[ Congestion TGLs = 2-5 ]		
	[ Fibrosis TGLs = 2-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 156

TRT#: 7

SEX: Male

DAY ON TEST: 699

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603346

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Pancreas
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

* Lymph Node, Mandibular	* Parathyroid Gland
--------------------------	---------------------

**OBSERVATIONS**

* Adrenal Cortex	Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla	Hyperplasia	Minimal
	Pheochromocytoma Benign	
* Bone Marrow	Hemorrhage	Moderate
	Hyperplasia	Moderate
* Eye		
Note: Optic nerve on slide 9.		
* Heart	Cardiomyopathy	Minimal
	Thrombosis	Moderate
[ Thrombosis TGLs = 7-16 ]		
* Kidney	Mineralization	Minimal
	Nephropathy	Mild
	Pigmentation	Mild
* Liver	Clear Cell Focus	
	Degeneration	Cystic, Mild
	Eosinophilic Focus	
	Bile Duct	Minimal
	Bile Duct	Mild
	Hepatocyte	Mild
	Hypertrophy	Mild
	Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 156

TRT#: 7

SEX: Male

DAY ON TEST: 699

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603346

ORGAN AND ACCOUNTABLE SITE STATUS

Mixed Cell Focus

[ Clear Cell Focus TGLs = 5-6+7 ]

[ Degeneration TGLs = 6-15 ]

[ Eosinophilic Focus TGLs = 5-7 ]

[ Mixed Cell Focus TGLs = 5-6+7, UPLA, UPLB ]

* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Mild
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 8-8 ]		
* Preputial Gland		Inflammation	Minimal
* Skin		Fibroma	
	[ Fibroma TGLs = 1-14 ]		
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 3-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 156

TRT#: 7

SEX: Male

DAY ON TEST: 699

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603346

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Adenoma TGLs = 2-11 ]

\* Thymus

Atrophy

Mild

PRIMARY CAUSE OF DEATH

- Heart Thrombosis

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 157

TRT#: 7

SEX: Male

DAY ON TEST: 656

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603347

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
Lymph Node	Mediastinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLs = 3-15 ]			
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Transit Epithe	Adenoma	
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 157

TRT#: 7

SEX: Male

DAY ON TEST: 656

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603347

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas	Acinus	Atrophy	Mild
		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Minimal
* Prostate	Epithelium	Hyperplasia	Mild
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
	[ Hematopoietic Cell Proliferation TGLs = 4-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild
Zymbal's Gland		Carcinoma	
	[ Carcinoma TGLs = 1-14 ]		

PRIMARY CAUSE OF DEATH - Zymbal's Gland Carcinoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 158

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603348

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
	[ Nephropathy TGLs = 6-5 ]		
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 5-6+7 ]		
	[ Fibrosis TGLs = 5-6 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 158

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603348

ORGAN AND ACCOUNTABLE SITE STATUS

* Lung		Alveolar/Bronchiolar Adenoma	
	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Mild
	[ Alveolar/Bronchiolar Adenoma TGLs = 7-16 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Preputial Gland		Hyperplasia	Moderate
		Inflammation	Mild
* Skin		Basal Cell Adenoma	
		Squamous Cell Papilloma	
	[ Basal Cell Adenoma TGLs = 1-14 ]		
	[ Squamous Cell Papilloma TGLs = 2-15 ]		
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 3-5 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 158

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603348

ORGAN AND ACCOUNTABLE SITE STATUS

* Stomach, Forestomach		Hyperplasia	Squamous, Mild
* Testes	Bilateral, Interstit Cell	Adenoma	
[ Adenoma TGLs = 4-11 ]			
* Thymus		Atrophy	Moderate



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 159

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 729

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603349

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatocellular Carcinoma	
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 4-6+7 ]		
	[ Hepatocellular Carcinoma TGLs = 5-15 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Transit Epithe	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 159

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603349

ORGAN AND ACCOUNTABLE SITE STATUS

	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Skin	Sebaceous GI	Adenoma	
	[ Adenoma TGLs = 1-14 ]		
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 3-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 160

TRT#: 7

SEX: Male

DAY ON TEST: 645

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603350

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Preputial Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

* Lymph Node, Mandibular	* Thymus
--------------------------	----------

**OBSERVATIONS**

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatocellular Carcinoma	
	Bile Duct	Hyperplasia	Moderate
	Hepatocyte	Hypertrophy	Minimal
	[ Hepatocellular Carcinoma TGLs = 3-15 ]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 160

TRT#: 7

SEX: Male

DAY ON TEST: 645

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603350

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin		Fibroma	
	[ Fibroma TGLs = 1-14 ]		
* Spleen	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 2-5 ]		
* Testes	Interstit Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH - Liver Hepatocellular Carcinoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 161

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 384

**DOSE:** 60 MG/KG

**DISP:** Natural Death

**HISTO:** 0603351

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Cortex            | * Adrenal Medulla        | Blood Vessel               | * Bone                    |
| * Brain                     | * Epididymis             | * Esophagus                | * Eye                     |
| * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Liver                     | * Mammary Gland          | * Pancreas                 | * Parathyroid Gland       |
| * Pituitary Gland           | * Prostate               | * Salivary Glands          | * Seminal Vesicle         |
| * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       | * Trachea                 |
| * Urinary Bladder           | Zymbal's Gland           |                            |                           |

**MISSING**

- \* Lymph Node, Mandibular

**AUTO PRECLUDES DIAG.**

- \* Nose
- \* Thyroid Gland

**OBSERVATIONS**

- |                          |                             |                       |                  |
|--------------------------|-----------------------------|-----------------------|------------------|
| * Bone Marrow            |                             | Hyperplasia           | Mild             |
| * Heart                  |                             | Cardiomyopathy        | Minimal          |
| * Kidney                 |                             | Mineralization        | Minimal          |
|                          |                             | Pigmentation          | Minimal          |
| * Lung                   |                             | Congestion            | Moderate         |
|                          | [ Congestion TGLs = 2-3+4 ] |                       |                  |
| * Lymph Node, Mesenteric |                             | Infiltration Cellular | Histiocyte, Mild |
| * Preputial Gland        |                             | Inflammation          | Minimal          |
| * Spleen                 | Capsule                     | Fibrosis              | Mild             |
|                          |                             | Pigmentation          | Mild             |
| * Testes                 | Bilateral, Interstit Cell   | Adenoma               |                  |
|                          | [ Adenoma TGLs = 1-11 ]     |                       |                  |
| * Thymus                 |                             | Atrophy               | Moderate         |

**PRIMARY CAUSE OF DEATH** - UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 162

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603352

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 3-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Moderate
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 162

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603352

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Transit Epithe	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
* Pancreas	Acinus	Atrophy	Minimal
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Preputial Gland		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Moderate
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 4-14 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 163

TRT#: 7

SEX: Male

DAY ON TEST: 669

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603353

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
	[ Nephropathy TGLs = 3-5 ]		
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Nerve	Atrophy	Minimal
	Transit Epithe	Carcinoma	
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 163

TRT#: 7

SEX: Male

DAY ON TEST: 669

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603353

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Transit Epithe	Hyperplasia	Moderate
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
	Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Minimal
* Spleen	Red Pulp	Atrophy	Moderate
		Congestion	Moderate
	Capsule	Fibrosis	Moderate
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Atrophy TGLs = 2-14 ]		
	[ Fibrosis TGLs = 2-14 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 1-11 ]		
	[ Hyperplasia TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Kidney Nephropathy  
 CONTRIBUTORY CAUSE OF DEATH - Nose Transit Epithe Carcinoma

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 164

TRT#: 7

SEX: Male

DAY ON TEST: 412

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603354

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Liver
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Preputial Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Testes
* Thyroid Gland	* Trachea	Zymbal's Gland	

**MISSING**

* Lymph Node, Mandibular	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
		Mineralization	Minimal
* Kidney	Pelvis	Dilatation	Moderate
		Mineralization	Mild
		Nephropathy	Mild
		Pigmentation	Minimal
	[ Dilatation TGLs = 3-15 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 164

TRT#: 7

SEX: Male

DAY ON TEST: 412

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603354

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Prostate		Inflammation	Moderate
* Seminal Vesicle	Epithelium	Hyperplasia	Moderate
		Inflammation	Moderate
* Spleen	Lymph Follic	Atrophy	Mild
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Stomach, Glandular		Mineralization	Minimal
Ureter		Inflammation	Mild
Note: There was inflammation in the wall of the ureter and the lumen was dilated.			
[ Inflammation TGLs = 2-14 ]			
* Urinary Bladder		Hemorrhage	Moderate
		Inflammation	Moderate
[ Hemorrhage TGLs = 1-5 ]			

PRIMARY CAUSE OF DEATH - Kidney Pelvis Dilatation

CONTRIBUTORY CAUSE OF DEATH - Prostate Inflammation

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 165

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603355

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Mild
	[ Inflammation TGLs = 1-10 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
	[ Nephropathy TGLs = 9-5 ]		
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 4,5-16+17 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 165

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603355

**ORGAN AND ACCOUNTABLE SITE STATUS**

	[ Mixed Cell Focus TGLs = 6-18 ]		
Lymph Node	Mediastinal	Hyperplasia	Plasma Cell, Moderate
	[ Hyperplasia TGLs = 11-19 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Cyst	
	[ Cyst TGLs = 3-15 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 7-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 10-5 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 165

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603355

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hyperplasia TGLs = 12-15 ]

\* Testes

Interstit Cell

Hyperplasia

Minimal

\* Thymus

Atrophy

Mild

Tongue

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLs = 2-14 ]

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 166

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603356

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Cortex           | * Adrenal Medulla         | Blood Vessel                | * Bone                   |
| * Brain                    | * Esophagus               | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Mammary Gland          |
| * Parathyroid Gland        | * Pituitary Gland         | * Prostate                  | * Salivary Glands        |
| * Seminal Vesicle          | * Skin                    | * Stomach, Glandular        | * Trachea                |
| * Urinary Bladder          | Zymbal's Gland            |                             |                          |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                          |                                   |                        |                     |
|--------------------------|-----------------------------------|------------------------|---------------------|
| * Bone Marrow            |                                   | Hyperplasia            | Moderate            |
| * Epididymis             |                                   | Mesothelioma Malignant |                     |
| * Eye                    | Retina                            | Atrophy                | Mild                |
| * Heart                  |                                   | Cardiomyopathy         | Mild                |
| * Kidney                 |                                   | Mineralization         | Minimal             |
|                          |                                   | Nephropathy            | Marked              |
|                          |                                   | Pigmentation           | Mild                |
|                          | [ Nephropathy TGLs = 1-5 ]        |                        |                     |
| * Liver                  |                                   | Clear Cell Focus       |                     |
|                          |                                   | Degeneration           | Cystic, Minimal     |
|                          |                                   | Eosinophilic Focus     |                     |
|                          | Bile Duct                         | Fibrosis               | Minimal             |
|                          | Bile Duct                         | Hyperplasia            | Minimal             |
|                          | Hepatocyte                        | Hypertrophy            | Mild                |
|                          |                                   | Inflammation           | Minimal             |
|                          |                                   | Mixed Cell Focus       |                     |
|                          | [ Clear Cell Focus TGLs = 4-6+7 ] |                        |                     |
|                          | [ Mixed Cell Focus TGLs = 4-6+7 ] |                        |                     |
| * Lymph Node, Mesenteric |                                   | Infiltration Cellular  | Histiocyte, Minimal |
| * Nose                   | Transit Epithe                    | Adenoma                |                     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 166

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603356

ORGAN AND ACCOUNTABLE SITE STATUS

	Nerve	Atrophy	Mild
	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
		Metaplasia	Hepatocyte, Mild
* Preputial Gland		Inflammation	Minimal
* Spleen	Red Pulp	Atrophy	Moderate
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Mild
		Pigmentation	Minimal
	[ Atrophy TGLs = 2-14 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
		Inflammation	Mild
	[ Hyperplasia TGLs = 5-15 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 3-11 ]		
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 167

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603357

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

* Lymph Node, Mandibular	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hemorrhage	Mild
		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Degeneration	Cystic, Minimal
		Fatty Change	Diffuse, Mild
	Bile Duct	Fibrosis	Minimal
		Hepatocellular Carcinoma	
	Bile Duct	Hyperplasia	Mild
	Oval Cell	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
		Vacuolization Cytoplasmic	Mild

[ Hepatocellular Carcinoma TGLs = 4-15 ]  
 [ Mixed Cell Focus TGLs = 6-17 ]  
 [ Vacuolization Cytoplasmic TGLs = 5-16 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 167

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603357

ORGAN AND ACCOUNTABLE SITE STATUS

Lymph Node [ Hyperplasia TGLs = 8-18 ]	Mediastinal	Hyperplasia	Lymphoid, Moderate
* Lymph Node, Mesenteric Mesentery [ Necrosis TGLs = 3-14 ]	Fat	Infiltration Cellular Necrosis	Histiocyte, Minimal Moderate
* Nose	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Moderate
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Mild
		Pigmentation	Minimal
[ Fibrosis TGLs = 2-5 ]			
* Testes [ Hyperplasia TGLs = 1-11 ]	Interstit Cell	Hyperplasia	Moderate
* Thyroid Gland	C Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 167

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603357

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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Follicular Cel

Adenoma

[ Adenoma TGLs = 7-8 ]

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 168

TRT#: 7

SEX: Male

DAY ON TEST: 661

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603358

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Pancreas	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus		
	TGLs = 3-6+7+15 ]		
	[ Mixed Cell Focus		
	TGLs = 3-6+7+15 ]		
* Lung	Alveolar Epith	Hyperplasia	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 168

TRT#: 7

SEX: Male

DAY ON TEST: 661

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603358

ORGAN AND ACCOUNTABLE SITE STATUS

	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Marked
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Parathyroid Gland		Hyperplasia	Diffuse, Mild
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
		Pigmentation	Mild
* Skin		Keratoacanthoma	
	[ Keratoacanthoma TGLs = 1-14 ]		
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
	[ Congestion TGLs = 4-5 ]		
	[ Fibrosis TGLs = 4-5 ]		
* Testes	Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 169

TRT#: 7

SEX: Male

DAY ON TEST: 614

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603359

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hemorrhage	Mild
		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 3-14 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 169

TRT#: 7

SEX: Male

DAY ON TEST: 614

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603359

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
	Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Minimal
	[ Fibrosis TGLs = 1-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild
		Hyperplasia	Lymphoid, Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 170

TRT#: 7

SEX: Male

DAY ON TEST: 576

DOSE: 60 MG/KG

DISP: Dosing Accident

HISTO: 0603360

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Bone Marrow		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Moderate
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Moderate
	Glands, Transit Epithe	Hyperplasia	Moderate
	Glands, Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 170

TRT#: 7

SEX: Male

DAY ON TEST: 576

DOSE: 60 MG/KG

DISP: Dosing Accident

HISTO: 0603360

ORGAN AND ACCOUNTABLE SITE STATUS

Glands, Olfactory Epi	Hyperplasia	Minimal
	Inflammation	Mild
Olfactory Epi	Metaplasia	Respiratory, Minimal
Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
Glands, Olfactory Epi	Necrosis	Moderate

Note: A foreign material was present in the meatus.

* Pancreas	Infiltration Cellular	Mononuclear CI, Minimal
* Preputial Gland	Inflammation	Mild
* Prostate	Inflammation	Minimal
* Spleen	Lymph Follic	Mild
	Congestion	Mild
	Capsule	Mild
	Fibrosis	Mild
	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Mild
* Thymus	Atrophy	Mild
* Trachea	Perforation	

Note: The perforation was in the bronchus near the bifurcation.

[ Perforation TGLs = 1-14 ]

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 171

TRT#: 7

SEX: Male

DAY ON TEST: 496

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603361

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung		Congestion	Moderate
	[ Congestion TGLs = 1-3+4 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 171

TRT#: 7

SEX: Male

DAY ON TEST: 496

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603361

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH

- UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 172

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603362

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Moderate
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 5-6+7 ]		
	[ Mixed Cell Focus TGLs = 5-6+7 ]		
* Nose	Transit Epithe	Adenoma	
	Nerve	Atrophy	Mild
	Olfactory Epi	Degeneration	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 172

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603362

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
		Foreign Body	
	Respirat Epith	Hyperplasia	Moderate
	Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Moderate
* Spleen	Red Pulp	Atrophy	Moderate
		Congestion	Mild
	Capsule	Fibrosis	Moderate
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
	[ Atrophy TGLs = 4-15 ]		
	[ Congestion TGLs = 3-14 ]		
	[ Fibrosis TGLs = 2-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Trachea		Inflammation	Moderate
* Urinary Bladder	Transit Epithe	Papilloma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 173

TRT#: 7

SEX: Male

DAY ON TEST: 616

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603363

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Mild
		Thrombosis	Moderate
	[ Thrombosis TGLs = 5-7 ]		
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Moderate
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Diffuse, Mild
	Bile Duct	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Hepatocellular Carcinoma	
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 173

TRT#: 7

SEX: Male

DAY ON TEST: 616

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603363

ORGAN AND ACCOUNTABLE SITE STATUS

Mixed Cell Focus

[ Fatty Change TGLs = 3-15 ]

[ Hepatocellular Carcinoma TGLs = 4-16 ]

* Lung		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Moderate
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Mild
* Pancreas	Acinus	Atrophy	Minimal
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Preputial Gland		Inflammation	Minimal
* Skin		Trichoepithelioma	
	[ Trichoepithelioma TGLs = 1-14 ]		
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Moderate
	Capsule	Hypertrophy	Mesothelium, Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		

PRIMARY CAUSE OF DEATH - Liver Hepatocellular Carcinoma

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 173

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 616

**DOSE:** 60 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603363

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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CONTRIBUTORY CAUSE OF DEATH - Kidney Nephropathy

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 174

TRT#: 7

SEX: Male

DAY ON TEST: 724

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603364

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 4-6+7 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 174

TRT#: 7

SEX: Male

DAY ON TEST: 724

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603364

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 3-5 ]		
* Testes	Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 175

TRT#: 7

SEX: Male

DAY ON TEST: 661

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603365

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
		Mineralization	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
	[ Nephropathy TGLs = 3-5 ]		
* Liver		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Minimal
	Oval Cell	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
	Hepatocyte	Necrosis	Minimal
Lymph Node	Mediastinal	Ectasia	Moderate
	[ Ectasia TGLs = 4-14 ]		
* Nose	Nerve	Atrophy	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 175

TRT#: 7

SEX: Male

DAY ON TEST: 661

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603365

ORGAN AND ACCOUNTABLE SITE STATUS

	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Moderate
	Glands, Olfactory Epi	Dilatation	Moderate
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
	Note: A foreign material was present in the meatus.		
* Pancreas	Acinus	Atrophy	Mild
		Cyst	
		Infiltration Cellular	Mononuclear CI, Minimal
* Parathyroid Gland		Hyperplasia	Diffuse, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Minimal
* Spleen	Red Pulp	Atrophy	Mild
	Lymph Follic	Atrophy	Mild
	Capsule	Fibrosis	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 2-5 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Mild
		Ulcer	Minimal
* Testes	Bilateral, Interstit Cell	Adenoma	

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

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**ANIMAL ID:** 175

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 661

**DOSE:** 60 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603365

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Atrophy

Moderate

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PRIMARY CAUSE OF DEATH

- Kidney Nephropathy

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 176

TRT#: 7

SEX: Male

DAY ON TEST: 723

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603366

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
* Bone Marrow		Hyperplasia	Mild
* Eye	Retina	Atrophy	Moderate
	Lens	Degeneration	Moderate
	[ Degeneration TGLs = 1-10 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Degeneration	Cystic, Minimal
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 3-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 176

TRT#: 7

SEX: Male

DAY ON TEST: 723

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603366

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Olfactory Epi	Dilatation	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Moderate
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
	Respirat Epith	Ulcer	Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 2-11 ]		
	[ Hyperplasia TGLs = 2-11 ]		
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 177

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603367

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis	Dilatation	Mild
		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
	[ Clear Cell Focus TGLs = 4-6+7 ]		
	[ Eosinophilic Focus TGLs = 5-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 177

TRT#: 7

SEX: Male

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603367

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Moderate
	Olfactory Epi	Metaplasia	Respiratory, Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pancreas	Acinus	Atrophy	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal
	[ Fibrosis TGLs = 3-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Trachea		Inflammation	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 178

TRT#: 7

SEX: Male

DAY ON TEST: 645

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603368

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Moderate
[ Vacuolization Cytoplasmic TGLs = 5-8 ]			
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Marked
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Mild
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
[ Eosinophilic Focus TGLs = 3,4-6+14 ]			
[ Mixed Cell Focus TGLs = 3,4-6+14 ]			
* Lymph Node, Mesenteric		Ectasia	Moderate
* Nose	Transit Epithe	Adenoma	
	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 178

TRT#: 7

SEX: Male

DAY ON TEST: 645

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603368

ORGAN AND ACCOUNTABLE SITE STATUS

	Transit Epithe	Hyperplasia	Moderate
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Moderate
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Necrosis	Moderate
* Parathyroid Gland		Hyperplasia	Diffuse, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Skin		Inflammation	Moderate
	[ Inflammation TGLs = 7-15 ]		
* Spleen	Lymph Follic	Atrophy	Moderate
		Congestion	Minimal
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Moderate
		Inflammation	Suppurative, Mild
		Pigmentation	Minimal
	[ Hematopoietic Cell Proliferation TGLs = 2-5 ]		
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 1-11 ]		
	[ Hyperplasia TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Skin Inflammation

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 179

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603369

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Parathyroid Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Mild
	[ Nephropathy TGLs = 3-5 ]		
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Mild
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 4-6+7, UPL1 ]		
Lymph Node	Mediastinal	Ectasia	Mild
	[ Ectasia TGLs = 5-14 ]		
* Lymph Node, Mesenteric		Ectasia	Mild
		Infiltration Cellular	Histiocyte, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 179

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603369

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Pancreas	Acinus	Atrophy	Minimal
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Mild
* Spleen	Lymph Follic	Atrophy	Minimal
		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 2-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 180

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603370

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Adenoma	
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Epididymis		Inflammation	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 3-6+7 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 180

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603370

ORGAN AND ACCOUNTABLE SITE STATUS

Glands, Respirat Epith	Dilatation	Minimal
Glands, Olfactory Epi	Dilatation	Moderate
	Foreign Body	
Respirat Epith	Hyperplasia	Moderate
Transit Epithe	Hyperplasia	Minimal
Glands, Respirat Epith	Hyperplasia	Minimal
Glands, Olfactory Epi	Hyperplasia	Mild
Olfactory Epi	Hyperplasia	Basal Cell, Minimal
	Inflammation	Mild
Olfactory Epi	Metaplasia	Respiratory, Mild
Glands, Respirat Epith	Metaplasia	Respiratory, Mild
Glands, Olfactory Epi	Metaplasia	Mild
Note: A foreign material was present in the meatus.		
* Pancreas	Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Adenoma	
* Preputial Gland	Inflammation	Mild
* Spleen	Atrophy	Mild
	Congestion	Minimal
	Capsule	Fibrosis
		Mild
		Hematopoietic Cell Proliferation
		Mild
		Hypertrophy
		Mesothelium, Minimal
		Mild
		Pigmentation
[ Fibrosis TGLs = 1-5 ]		
* Testes	Interstit Cell	
	Interstit Cell	
[ Adenoma TGLs = 2-11 ]		
[ Hyperplasia TGLs = 2-11 ]		
* Thymus	Atrophy	Moderate
* Thyroid Gland	Bilateral, C Cell	
[ Adenoma TGLs = 4-8 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 181

TRT#: 7

SEX: Male

DAY ON TEST: 431

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603371

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 1-14 ]		
	[ Eosinophilic Focus TGLs = 1-14 ]		
	[ Fatty Change TGLs = 1-14 ]		
	[ Mixed Cell Focus TGLs = 1-14 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 181

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 431

**DOSE:** 60 MG/KG

**DISP:** Natural Death

**HISTO:** 0603371

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Preputial Gland		Inflammation	Minimal
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH

- UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 182

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603372

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 3-6+7 ]		
	[ Hepatodiaphragmatic Nodule TGLs = 4-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 182

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 728

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603372

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Dilatation	Moderate
	Transit Epithe	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Minimal
	[ Fibrosis TGLs = 2-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 183

TRT#: 7

SEX: Male

DAY ON TEST: 192

DOSE: 60 MG/KG

DISP: Dosing Accident

HISTO: 0603373

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Liver	* Mammary Gland	* Pancreas
* Parathyroid Gland	* Preputial Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Testes	* Thyroid Gland	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Necrosis	Mild
* Bone Marrow		Hyperplasia	Moderate
* Esophagus		Inflammation	Moderate
		Perforation	
	[ Perforation TGLs = 4-14 ]		
* Heart		Cardiomyopathy	Minimal
	Pericardium	Inflammation	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Lung		Congestion	Mild
	[ Congestion TGLs = 2-3+4 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Olfactory Epi	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 183

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 192

**DOSE:** 60 MG/KG

**DISP:** Dosing Accident

**HISTO:** 0603373

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen	Lymph Follicle	Atrophy	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Trachea	Peritrach Tissue	Inflammation	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 184

TRT#: 7

SEX: Male

DAY ON TEST: 724

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603374

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Salivary Glands	* Seminal Vesicle
* Skin	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Mild
		Nephropathy	Marked
		Pigmentation	Minimal
	[ Nephropathy TGLs = 4-5 ]		
* Liver		Degeneration	Cystic, Mild
		Fatty Change	Diffuse, Mild
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Hyperplasia	Plasma Cell, Mild
* Nose	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Transit Epithe	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 184

TRT#: 7

SEX: Male

DAY ON TEST: 724

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603374

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Parathyroid Gland		Hyperplasia	Diffuse, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 5-8 ]			
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Moderate
* Spleen	Lymph Follic	Atrophy	Moderate
		Congestion	Mild
	Capsule	Fibrosis	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
[ Fibrosis TGLs = 2-5 ]			
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Moderate
		Ulcer	Moderate
[ Ulcer TGLs = 6,7-14+15 ]			
* Stomach, Glandular		Inflammation	Mild
		Necrosis	Moderate
[ Necrosis TGLs = 8-16 ]			
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

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**ANIMAL ID:** 184

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 724

**DOSE:** 60 MG/KG

**DISP:** Natural Death

**HISTO:** 0603374

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH - Kidney Nephropathy

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 185

TRT#: 7

SEX: Male

DAY ON TEST: 724

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603375

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Mammary Gland	* Parathyroid Gland
* Pituitary Gland	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Eye	Retina	Atrophy	Mild
Note: Optic nerves on slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
	[ Nephropathy TGLs = 4-5 ]		
* Liver	Bile Duct	Clear Cell Focus	
		Fibrosis	Moderate
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
	[ Clear Cell Focus TGLs = 6-6+7+14+15 ]		
	[ Fibrosis TGLs = 5-6+7+14+15 ]		
	[ Hepatodiaphragmatic Nodule TGLs = 7-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANATOMY PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 185

TRT#: 7

SEX: Male

DAY ON TEST: 724

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603375

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Nerve	Atrophy	Mild
	Transit Epithe	Carcinoma	
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas		Cyst	
		Infiltration Cellular	Mononuclear CI, Mild
* Preputial Gland		Inflammation	Minimal
* Spleen	Red Pulp	Atrophy	Moderate
	Lymph Follic	Atrophy	Mild
		Congestion	Moderate
	Capsule	Fibrosis	Moderate
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
Note: Fat cells were present in the areas of focal atrophy of red pulp.			
	[ Atrophy TGLs = 2-14 ]		
	[ Fibrosis TGLs = 3-5+14 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
		Inflammation	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 185

TRT#: 7

SEX: Male

DAY ON TEST: 724

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603375

ORGAN AND ACCOUNTABLE SITE STATUS

Ulcer

Mild

[ Hyperplasia TGLs = 8-16 ]

\* Testes

Bilateral, Interstit Cell

Adenoma

[ Adenoma TGLs = 1-11 ]

\* Thymus

Atrophy

Marked

PRIMARY CAUSE OF DEATH

- Kidney Nephropathy

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 186

TRT#: 7

SEX: Male

DAY ON TEST: 348

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603376

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Glands, Olfactory Epi	Necrosis	Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 186

TRT#: 7

SEX: Male

DAY ON TEST: 348

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603376

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Preputial Gland		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 187

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603377

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Parathyroid Gland	* Pituitary Gland	* Prostate	* Salivary Glands
* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
	[ Nephropathy TGLs = 6-5 ]		
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 5-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 187

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603377

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Moderate
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Pancreas	Acinus	Atrophy	Mild
* Preputial Gland		Inflammation	Minimal
* Skin		Fibroma	
	[ Fibroma TGLs = 4-15 ]		
* Spleen	Red Pulp	Atrophy	Moderate
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Atrophy TGLs = 2-14 ]		
	[ Fibrosis TGLs = 3-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 188

TRT#: 7

SEX: Male

DAY ON TEST: 601

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603378

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Medulla		Pheochromocytoma Malignant	
[ Pheochromocytoma Malignant	TGLs = 2-14 ]		
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Mixed Cell Focus	
* Lung		Pheochromocytoma Malignant	Metastatic (Adrenal Medulla)
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 188

TRT#: 7

SEX: Male

DAY ON TEST: 601

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603378

ORGAN AND ACCOUNTABLE SITE STATUS

	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Preputial Gland		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Pigmentation	Minimal
Note: Raised areas in the spleen could not be diagnosed because of autolysis.			
	[ Fibrosis TGLs = 3-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Adrenal Medulla Pheochromocytoma Malignant

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 189

TRT#: 7

SEX: Male

DAY ON TEST: 727

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603379

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 3-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate
	Glands, Transit Epithe	Dilatation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 189

TRT#: 7

SEX: Male

DAY ON TEST: 727

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603379

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Minimal
* Spleen		Congestion	Minimal
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 2-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 190

TRT#: 7

SEX: Male

DAY ON TEST: 727

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603380

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Epididymis	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Brain		Carcinoma	Metastatic (Pituitary Gland)
* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	
	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
	[ Cyst TGLs = 4-5 ]		
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Moderate
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 2-6+7+14 ]		
* Lung	Alveolar Epith	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 190

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603380

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Transit Epithe	Adenoma	
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Intermed	Carcinoma	
		Cyst	
* Preputial Gland		Inflammation	Mild
* Prostate	Epithelium	Hyperplasia	Minimal
* Spleen	Lymph Follic	Atrophy	Minimal
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 3-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Moderate
Zymbal's Gland		Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 191

TRT#: 7

SEX: Male

DAY ON TEST: 727

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603381

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Moderate
* Eye			
Note: Optic nerve on slide 9.			
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Mild
	[ Nephropathy TGLs = 3-5 ]		
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Mild
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 2-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Transit Epithe	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 191

TRT#: 7

SEX: Male

DAY ON TEST: 727

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603381

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 5-8 ]		
* Preputial Gland		Cyst	
		Inflammation	Mild
* Prostate		Inflammation	Moderate
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Congestion TGLs = 4-5 ]		
* Testes	Interstit Cell	Adenoma	
		Mineralization	Mild
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 192

TRT#: 7

SEX: Male

DAY ON TEST: 727

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603382

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Mammary Gland	* Parathyroid Gland
* Prostate	* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Moderate
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 4-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Moderate

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 192

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 727

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603382

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Transit Epithe	Dilatation	Mild
	Transit Epithe	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Skin		Keratoacanthoma	
	[ Keratoacanthoma TGLs = 1-14 ]		
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Mild
		Pigmentation	Mild
	[ Fibrosis TGLs = 3-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 2-11+15 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 193

TRT#: 7

SEX: Male

DAY ON TEST: 612

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603383

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Eye			
Note: Optic nerves on slide 9.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Fatty Change	Diffuse, Moderate
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hepatocellular Carcinoma	
	[ Hepatocellular Carcinoma TGLs = 2-14 ]	Hyperplasia	Minimal
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
	[ Hepatocellular Carcinoma TGLs = 1-3+4 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
		Foreign Body	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 193

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 612

**DOSE:** 60 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603383

**ORGAN AND ACCOUNTABLE SITE STATUS**

Respirat Epith	Hyperplasia	Mild
Glands, Transit Epithe	Hyperplasia	Minimal
Transit Epithe	Hyperplasia	Minimal
Glands, Olfactory Epi	Hyperplasia	Minimal
Olfactory Epi	Hyperplasia	Basal Cell, Mild
	Inflammation	Moderate
Glands, Respirat Epith	Metaplasia	Respiratory, Mild
Olfactory Epi	Metaplasia	Respiratory, Minimal
Glands, Olfactory Epi	Necrosis	Mild

Note: A foreign material was present in the meatus.

* Preputial Gland		Inflammation	Mild
* Spleen		Congestion	Minimal
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Moderate
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Hematopoietic Cell Proliferation TGLs = 3-5 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Moderate
		Ulcer	Moderate
	[ Ulcer TGLs = 4-15 ]		
* Testes	Interstit Cell	Hyperplasia	Mild
* Thymus		Atrophy	Moderate

**PRIMARY CAUSE OF DEATH** - Liver Hepatocellular Carcinoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 194

TRT#: 7

SEX: Male

DAY ON TEST: 671

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603384

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Prostate
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Eye			
	Note: Optic nerves missing.		
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Fatty Change	Diffuse, Minimal
		Hepatocellular Adenoma	
		Hepatocellular Carcinoma	
		Inflammation	Minimal
	[ Hepatocellular Adenoma TGLs = 2-15 ]		
	[ Hepatocellular Carcinoma TGLs = 1-14 ]		
* Lung		Hepatocellular Carcinoma	Metastatic (Liver)
	[ Hepatocellular Carcinoma TGLs = 4-3+4 ]		
* Nose		Olfactory Epi	Mild
		Glands, Respirat Epith	Minimal
		Glands, Olfactory Epi	Mild
		Respirat Epith	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 194

TRT#: 7

SEX: Male

DAY ON TEST: 671

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603384

ORGAN AND ACCOUNTABLE SITE STATUS

	Transit Epithe	Hyperplasia	Moderate
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Necrosis	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
* Preputial Gland		Inflammation	Minimal
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
	[ Congestion TGLs = 5-5 ]		
	[ Fibrosis TGLs = 5-5 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Mild
		Ulcer	Mild
	[ Hyperplasia TGLs = 6-15 ]		
	[ Ulcer TGLs = 6-15 ]		
* Testes	Interstit Cell	Adenoma	
	[ Adenoma TGLs = 3-11 ]		
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Liver Hepatocellular Carcinoma

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 195

TRT#: 7

SEX: Male

DAY ON TEST: 622

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603385

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Epididymis	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	Zymbal's Gland

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 1-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 195

TRT#: 7

SEX: Male

DAY ON TEST: 622

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603385

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Moderate
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		
* Preputial Gland		Inflammation	Mild
* Prostate		Inflammation	Minimal
* Skin		Cyst Epithelial Inclusion	
	[ Cyst Epithelial Inclusion TGLs = 2-14 ]		
* Spleen		Congestion	Minimal
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Testes	Interstit Cell	Hyperplasia	Minimal
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 196

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603386

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Prostate	* Salivary Glands	* Seminal Vesicle
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	Zymbal's Gland		

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland
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OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
[ Clear Cell Focus TGLs = 3-14 ]			
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Transit Epithe	Adenoma	
	Nerve	Atrophy	Mild
	Olfactory Epi	Degeneration	Moderate

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 196

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603386

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Moderate
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Congestion TGLs = 2-5 ]		
	[ Fibrosis TGLs = 2-5 ]		
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 1-11 ]		
	[ Hyperplasia TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Carcinoma	
	[ Carcinoma TGLs = 4-15 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 197

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 653

**DOSE:** 60 MG/KG

**DISP:** Natural Death

**HISTO:** 0603387

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Mammary Gland	* Parathyroid Gland
* Salivary Glands	* Seminal Vesicle	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Testes	* Thyroid Gland	* Trachea
* Urinary Bladder	Zymbal's Gland		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Moderate
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 197

TRT#: 7

SEX: Male

DAY ON TEST: 653

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603387

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 1-8 ]			
* Preputial Gland		Inflammation	Minimal
* Prostate	Epithelium	Hyperplasia	Mild
		Inflammation	Mild
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 198

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603388

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Epididymis	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Parathyroid Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Mild
	[ Nephropathy TGLs = 3-5 ]		
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 4-6+7 ]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Transit Epithe	Adenoma	
	Glands, Olfactory Epi	Adenoma	
	Olfactory Epi	Degeneration	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 198

TRT#: 7

SEX: Male

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603388

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
* Pancreas		Infiltration Cellular	Mononuclear Cl, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 5-8 ]			
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
[ Fibrosis TGLs = 2-5 ]			
* Testes	Interstit Cell	Adenoma	
[ Adenoma TGLs = 1-11 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 199

TRT#: 7

SEX: Male

DAY ON TEST: 695

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603389

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Epididymis
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Salivary Glands	* Seminal Vesicle	* Skin
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
Zymbal's Gland			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Minimal
	[ Nephropathy TGLs = 3-5 ]		
* Liver		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Moderate
		Inflammation	Minimal
	[ Eosinophilic Focus TGLs = 4-6+7 ]		
* Nose	Transit Epithe	Adenoma	
	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 199

TRT#: 7

SEX: Male

DAY ON TEST: 695

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603389

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Dilatation	Moderate
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Parathyroid Gland		Hyperplasia	Diffuse, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 5-8 ]		
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Mild
* Spleen	Red Pulp	Atrophy	Mild
	Capsule	Fibrosis	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
	[ Fibrosis TGLs = 2-5 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
		Inflammation	Moderate
		Ulcer	Minimal
* Testes	Interstit Cell	Adenoma	
	Interstit Cell	Hyperplasia	Minimal
	[ Adenoma TGLs = 1-11 ]		
	[ Hyperplasia TGLs = 1-11 ]		
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Kidney Nephropathy

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 200

TRT#: 7

SEX: Male

DAY ON TEST: 668

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603390

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Seminal Vesicle	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Urinary Bladder	Zymbal's Gland	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Epididymis		Inflammation	Minimal
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
Lymph Node	Mediastinal	Hyperplasia	Lymphoid, Mild
[ Hyperplasia TGLs = 4-14 ]			
* Nose	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 200

TRT#: 7

SEX: Male

DAY ON TEST: 668

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603390

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Necrosis	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Preputial Gland		Inflammation	Minimal
* Prostate		Inflammation	Minimal
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Congestion TGLs = 2-5 ]		
* Testes	Bilateral, Interstit Cell	Adenoma	
	[ Adenoma TGLs = 1-11 ]		
* Thymus		Atrophy	Mild
* Trachea		Inflammation	Minimal

PRIMARY CAUSE OF DEATH

- UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 201

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603391

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Clitoral Gland		Cyst	
		Hyperplasia	Minimal
		Inflammation	Minimal
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 3-6+7 ]		
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Minimal
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
* Nose	Respirat Epi	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 201

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603391

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: Foreign material was in the nasal passage.

* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma	TGLs = 4-8 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 202

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603392

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Degeneration	Cystic, Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Mild
* Clitoral Gland		Hyperplasia	Minimal
		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 3-6+7 ]		
* Mammary Gland		Cyst	
		Hyperplasia	Minimal
	[ Cyst TGLs = 4-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Ovary		Cyst	
	[ Cyst TGLs = 2-13 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 202

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603392

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland [ Adenoma TGLs = 1-8 ]	Pars Distalis	Adenoma	
* Spleen		Pigmentation	Moderate
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Urinary Bladder	Transit Epithe	Papilloma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 203

TRT#: 2

SEX: Female

DAY ON TEST: 646

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603393

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Marked
* Clitoral Gland		Adenoma	
		Inflammation	Mild
	[ Adenoma TGLs = 1-13 ]		
* Intestine Small, Jejunum		Leukemia Mononuclear	
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Focal, Mild
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 3-6+7 ]		
* Lung		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
* Pancreas	Acinus	Atrophy	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 203

TRT#: 2

SEX: Female

DAY ON TEST: 646

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603393

**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Spleen

Leukemia Mononuclear

Pigmentation

Minimal

[ Leukemia Mononuclear TGLs = 2-14 ]

\* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 204

TRT#: 2

SEX: Female

DAY ON TEST: 687

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603394

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Leukemia Mononuclear	
* Heart		Cardiomyopathy	Mild
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Diffuse, Mild
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 4,5-6+7+15 ]		
Lymph Node	Mediastinal	Ectasia	Mild
	[ Ectasia TGLs = 2-13 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Hyperplasia	Minimal
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 3-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 204

TRT#: 2

SEX: Female

DAY ON TEST: 687

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603394

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	
[ Adenoma TGLs = 1-8 ]		Adenoma	
* Spleen		Leukemia Mononuclear	
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 205

TRT#: 2

SEX: Female

DAY ON TEST: 673

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603395

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Cyst	
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Mild
* Lung		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 205

TRT#: 2

SEX: Female

DAY ON TEST: 673

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603395

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Respirat Epith	Hyperplasia	Minimal
* Pituitary Gland	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
[ Adenoma TGLs = 2-8 ]	Acinus	Atrophy	Minimal
* Spleen	Pars Distalis	Adenoma	
* Thymus		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 206

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603396

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Adenoma	
		Angiectasis	Mild
		Hypertrophy	Moderate
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
Note: Basophilic foci lacked characteristic basophilic staining of the cytoplasm:- however, were diagnosed on the basis of cell and nuclear size.			
[ Basophilic Focus TGLs = 2-6+7+13 ]			
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal
		Infiltration Cellular	Mononuclear Cl, Mild
* Parathyroid Gland		Hyperplasia	Diffuse, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 206

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603396

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Hyperplasia TGLs = 1-8 ]	Pars Distalis	Hyperplasia	Marked
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell C Cell	Adenoma Hyperplasia	 Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 207

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603397

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Adenoma	
		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 2-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
* Ovary		Cyst	
	[ Cyst TGLs = 1-13 ]		
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 207

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603397

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 208

TRT#: 2

SEX: Female

DAY ON TEST: 547

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603398

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Necrosis	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Kidney		Leukemia Mononuclear	
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 3-6+7 ]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen	Capsule	Fibrosis	Minimal
		Leukemia Mononuclear	
		Necrosis	Moderate
	[ Leukemia Mononuclear TGLs = 1-5 ]		
	[ Necrosis TGLs = 2-13 ]		

\* PROTOCOL REQUIRED TISSUE



**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

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**ANIMAL ID:** 208

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 547

**DOSE:** 0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603398

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Adenoma

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**PRIMARY CAUSE OF DEATH**

- Spleen Leukemia Mononuclear

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TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 209

TRT#: 2

SEX: Female

DAY ON TEST: 690

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0603399

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Clitoral Gland	* Esophagus
* Eye	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

AUTO PRECLUDES DIAG.

\* Thyroid Gland

OBSERVATIONS

* Adrenal Cortex	Leukemia Mononuclear	
* Adrenal Medulla	Leukemia Mononuclear	
* Bone Marrow	Leukemia Mononuclear	
* Brain	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLs = 5-9 ]		
* Eye		
Note: Optic nerve on slide 9.		
* Harderian Gland	Leukemia Mononuclear	
* Heart	Leukemia Mononuclear	
* Kidney	Leukemia Mononuclear	
	Mineralization	Mild
	Pigmentation	Minimal
* Liver	Basophilic Focus	
	Fatty Change	Diffuse, Minimal
	Leukemia Mononuclear	
[ Leukemia Mononuclear TGLs = 3-6+7 ]		
* Lung	Leukemia Mononuclear	
* Lymph Node, Mesenteric	Leukemia Mononuclear	
* Mammary Gland	Fibroadenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 209

TRT#: 2

SEX: Female

DAY ON TEST: 690

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0603399

ORGAN AND ACCOUNTABLE SITE STATUS

[ Fibroadenoma TGLs = 1-13 ]

* Nose	Glands, Respirat Epith	Dilatation	Minimal
* Ovary		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 4-8 ]		
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 2-5 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 210

TRT#: 2

SEX: Female

DAY ON TEST: 642

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0603400

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Degeneration	Cystic, Minimal
		Hypertrophy	Minimal
* Clitoral Gland		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Pigmentation	Minimal
* Liver		Basophilic Focus	
* Mammary Gland		Fibroadenoma	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 1-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 211

TRT#: 2

SEX: Female

DAY ON TEST: 691

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603401

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Adenoma	
		Inflammation	Mild
	[ Adenoma TGLs = 1-13 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 211

TRT#: 2

SEX: Female

DAY ON TEST: 691

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603401

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 2-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Stomach, Forestomach		Inflammation	Mild
		Ulcer	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 212

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603402

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Fatty Change	Diffuse, Minimal
		Inflammation	Minimal
		Leukemia Mononuclear	
	[ Eosinophilic Focus TGLs = 6-16 ]		
	[ Leukemia Mononuclear TGLs = 4-6+7 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2,3-13+14+15 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 212

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603402

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland [ Cyst TGLs = 5-8 ]	Pars Distalis	Inflammation Cyst	Minimal
* Spleen		Hematopoietic Cell Proliferation Leukemia Mononuclear Pigmentation	Minimal
* Thymus		Atrophy	Moderate



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 213

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603403

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Clitoral Gland		Cyst	
		Hyperplasia	Minimal
Ear		Neural Crest Tumor	
	[ Neural Crest Tumor TGLs = 2-13 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Basophilic Focus TGLs = 3-6+7+14 ]		
	[ Hepatodiaphragmatic Nodule TGLs = 4-14 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Hyperplasia	Lymphoid, Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 213

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603403

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
* Pancreas	Acinus	Atrophy	Mild
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 1-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 214

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603404

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Ovary	* Parathyroid Gland
* Pituitary Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

* Lymph Node, Mandibular	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Degeneration	Cystic, Moderate
		Hyperplasia	Mild
* Eye		Melanoma Benign	
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 215

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603405

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Clitoral Gland		Cyst	
		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Basophilic Focus TGLs = 3-6+7+14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
* Ovary	Bilateral	Fibrosarcoma	
	[ Fibrosarcoma TGLs = 1-13 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 215

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603405

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Acinus	Atrophy	Mild
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Cyst	
[ Cyst TGLs = 4-13 ]			
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
[ Fibrosis TGLs = 2-5 ]			
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Inflammation	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 216

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603406

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

* Lymph Node, Mandibular	* Thymus
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**OBSERVATIONS**

* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Cyst	
		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Fatty Change	Focal, Mild
	Bile Duct	Fibrosis	Minimal
	[ Leukemia Mononuclear TGLs = 4-6+7 ]	Leukemia Mononuclear	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]	Hyperplasia	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pancreas	Acinus	Atrophy	Mild
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 216

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603406

ORGAN AND ACCOUNTABLE SITE STATUS

\* Spleen

Leukemia Mononuclear  
Pigmentation

Minimal

[ Leukemia Mononuclear TGLs = 3-5 ]

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 217

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603407

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Degeneration	Cystic, Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Clitoral Gland		Cyst	
		Hyperplasia	Minimal
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Mild
	[ Basophilic Focus TGLs = 1-6+7 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Moderate
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 217

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603407

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pancreas	Acinus	Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Atrophy	Mild
[ Hyperplasia TGLs = 2-8 ]		Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 218

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603408

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
* Clitoral Gland		Hyperplasia	Mild
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 1-6+7+13 ]		
* Lung		Alveolar/Bronchiolar Adenoma	
* Mammary Gland		Cyst	
		Fibroadenoma	
	[ Fibroadenoma TGLs = 3-14 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 2-14 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 218

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603408

ORGAN AND ACCOUNTABLE SITE STATUS

	Respirat Epith Glands, Respirat Epith	Foreign Body Hyperplasia Hyperplasia Inflammation	Minimal Minimal Minimal
* Pituitary Gland [ Adenoma TGLs = 4-8 ]	Olfactory Epi Pars Distalis	Metaplasia Adenoma	Respiratory, Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell C Cell	Adenoma Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 219

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603409

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Moderate
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Adenoma	
	[ Adenoma TGLs = 2-12 ]	Cyst	
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
	Renal Tubule	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Basophilic Focus TGLs = 5-6+7 ]		
	[ Eosinophilic Focus TGLs = 4-15 ]		
	[ Mixed Cell Focus TGLs = 3-14 ]		
* Mammary Gland		Hyperplasia	Minimal
* Nose		Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Respirat Epith		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 219

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603409

ORGAN AND ACCOUNTABLE SITE STATUS

	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 6-8 ]		
* Skin		Fibroma	
	[ Fibroma TGLs = 1-13 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 220

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603410

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Moderate
* Clitoral Gland		Inflammation	Mild
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Focal, Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 221

TRT#: 2

SEX: Female

DAY ON TEST: 574

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603411

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Clitoral GI			
Note: One clitoral gland missing.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
	Pelvis	Inflammation	Mild
	Papilla	Inflammation	Mild
		Nephropathy	Minimal
* Liver		Pigmentation	Minimal
		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Carcinoma	Multiple
	[ Carcinoma TGLs = 1,2-13+14 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Nasolacrim Dct	Inflammation	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		
* Spleen		Pigmentation	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 221

TRT#: 2

SEX: Female

DAY ON TEST: 574

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603411

**ORGAN AND ACCOUNTABLE SITE STATUS**

\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH

- Mammary Gland Carcinoma



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 222

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603412

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Adenoma	
		Angiectasis	Minimal
		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 1-13 ]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Marked
	Respirat Epith	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 222

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603412

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 2-8 ]	Olfactory Epi Pars Distalis	Metaplasia Adenoma	Respiratory, Mild
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Moderate
* Stomach, Forestomach [ Ulcer TGLs = 3-14 ]		Hyperplasia Inflammation Ulcer	Squamous, Minimal Mild Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 223

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603413

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Nose	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Clitoral Gland		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Mild
		Mineralization	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Mild
		Mixed Cell Focus	
	[ Basophilic Focus TGLs = 3-13 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 4-8 ]		
* Spleen		Pigmentation	Moderate
* Thymus		Atrophy	Marked

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

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**ANIMAL ID:** 223

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603413

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thyroid Gland

C Cell

Hyperplasia

Minimal

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 224

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603414

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Parathyroid Gland	* Salivary Glands	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Moderate
		Degeneration	Cystic, Mild
		Hyperplasia	Mild
* Clitoral Gland		Cyst	
		Inflammation	Minimal
	[ Cyst TGLs = 1-12 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Diffuse, Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 6-7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 2,4-13+15 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 5-16 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 224

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603414

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Olfactory Epi Glands, Respirat Epith	Accumulation, Hyaline Droplet Metaplasia Fibrosis	Mild Respiratory, Minimal Mild
* Pancreas [ Fibrosis TGLs = 8-17 ]			
* Pituitary Gland [ Cyst TGLs = 7-8 ]	Pars Distalis	Cyst	
* Skin [ Keratoacanthoma TGLs = 3-14 ]		Keratoacanthoma	
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Mild
* Stomach, Forestomach  [ Hyperplasia TGLs = 9-18 ] [ Inflammation TGLs = 9-18 ] [ Ulcer TGLs = 9-18 ]		Hyperplasia Inflammation Ulcer	Squamous, Mild Mild Mild
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 225

TRT#: 2

SEX: Female

DAY ON TEST: 698

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603415

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Moderate
* Eye	Retina	Atrophy	Marked
		Cataract	Moderate
	Note: Optic nerves missing. [ Cataract TGLs = 1-10 ]		
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
	[ Nephropathy TGLs = 3-5 ]		
* Liver		Fatty Change	Diffuse, Mild
		Inflammation	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
	[ Cyst TGLs = 2-8 ]		
* Spleen	Lymph Follic	Atrophy	Mild
	Capsule	Fibrosis	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 225

TRT#: 2

SEX: Female

DAY ON TEST: 698

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603415

ORGAN AND ACCOUNTABLE SITE STATUS

* Stomach, Forestomach		Pigmentation	Mild
		Hyperplasia	Squamous, Mild
		Inflammation	Moderate
		Ulcer	Mild
* Thymus		Atrophy	Marked
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Tongue		Squamous Cell Papilloma	
[ Squamous Cell Papilloma TGLs = 4-13 ]			

PRIMARY CAUSE OF DEATH - Kidney Nephropathy



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 226

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603416

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 4-15 ]		
	[ Hepatodiaphragmatic Nodule TGLs = 3-14 ]		
	[ Mixed Cell Focus TGLs = 4-6+7+15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 226

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603416

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
		Inflammation	Minimal
* Ovary		Cyst	
[ Cyst TGLs = 2-11 ]			
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Moderate
[ Hyperplasia TGLs = 5-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Marked

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 227

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603417

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Bone	* Brain	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex	Hyperplasia	Mild
	Hypertrophy	Mild
	Leukemia Mononuclear	
	Vacuolization Cytoplasmic	Mild
* Adrenal Medulla	Leukemia Mononuclear	
Blood Vessel	Leukemia Mononuclear	
* Bone Marrow	Hyperplasia	Moderate
	Myelofibrosis	Mild
* Clitoral Gland	Inflammation	Minimal
* Harderian Gland	Inflammation	Mild
* Heart	Leukemia Mononuclear	
* Kidney	Accumulation, Hyaline Droplet	Mild
	Infarct	Moderate
	Leukemia Mononuclear	
	Mineralization	Minimal
	Nephropathy	Minimal
	Pigmentation	Mild
[ Infarct TGLs = 5-16 ]		
* Liver	Basophilic Focus	
	Bile Duct	Fibrosis
	Bile Duct	Hyperplasia
	Oval Cell	Hyperplasia

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 227

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603417

ORGAN AND ACCOUNTABLE SITE STATUS

Leukemia Mononuclear

[ Leukemia Mononuclear TGLs = 4-6+7 ]

\* Lung

Leukemia Mononuclear

\* Lymph Node, Mesenteric

Leukemia Mononuclear

\* Mammary Gland

Fibroadenoma

Multiple

[ Fibroadenoma TGLs = 1,2,3-13+14+15 ]

\* Nose

Respirat Epith

Accumulation, Hyaline Droplet

Minimal

Olfactory Epi

Accumulation, Hyaline Droplet

Minimal

Glands, Respirat Epith

Metaplasia

Respiratory, Minimal

\* Pancreas

Leukemia Mononuclear

\* Pituitary Gland

Cyst

Pars Distalis

Hyperplasia

Moderate

Leukemia Mononuclear

[ Hyperplasia TGLs = 6-8 ]

\* Spleen

Capsule

Fibrosis

Minimal

Leukemia Mononuclear

Pigmentation

Minimal

\* Thymus

Leukemia Mononuclear

\* Thyroid Gland

C Cell

Hyperplasia

Mild

Leukemia Mononuclear

\* Urinary Bladder

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 228

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603418

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
	Renal Tubule	Dilatation	Mild
		Infarct	Mild
		Mineralization	Mild
		Nephropathy	Minimal
		Pigmentation	Minimal
	[ Infarct TGLs = 2,3-5 ]		
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 228

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603418

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland [ Adenoma TGLs = 1-8 ]	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicle	Cyst	
	C Cell	Hyperplasia	Mild
	Follicular Cel	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 229

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603419

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 7-6+7 ]		
* Mammary Gland		Cyst	
		Fibroadenoma	Multiple
		Hyperplasia	Mild
	[ Cyst TGLs = 2-14 ]		
	[ Fibroadenoma TGLs = 1,3,4-13+15+16 ]		
	[ Hyperplasia TGLs = 2-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 229

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603419

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Angiectasis	Moderate
	Pars Distalis	Cyst	
	Pars Distalis	Hyperplasia	Minimal
	[ Angiectasis TGLs = 5-8 ]		
* Skin		Fibrosarcoma	
	Note: TGL 1 contained two tumors: one arose from the mammary gland and one appeared to arise from the skin.		
	[ Fibrosarcoma TGLs = 1-13 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	
* Uterus		Polyp Stromal	
	[ Polyp Stromal TGLs = 6-17 ]		



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 230

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603420

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Adenoma	
		Angiectasis	Mild
		Hypertrophy	Marked
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Basophilic Focus TGLs = 2-6+7 ]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 230

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603420

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 231

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603421

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

* Lymph Node, Mandibular	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex	Angiectasis	Mild
	Hyperplasia	Mild
* Bone Marrow	Hyperplasia	Marked
* Clitoral Gland	Inflammation	Minimal
* Heart	Cardiomyopathy	Minimal
* Liver	Basophilic Focus	
	Eosinophilic Focus	
	Inflammation	Minimal
Note: Because of the lack of differential staining, basophilic foci were diagnosed on the basis of cell size.		
	[ Basophilic Focus TGLs = 6,8-6+7+17+19 ]	
	[ Eosinophilic Focus TGLs = 7-18 ]	
* Lung	Fibrosarcoma	Metastatic (Skin)
	[ Fibrosarcoma TGLs = 9-3+4 ]	
* Lymph Node, Mesenteric	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland	Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,5-15+16 ]	
* Nose	Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Adenoma
* Skin	Fibrosarcoma	Multiple
Note: The skin tumors were from the tail.		
	[ Fibrosarcoma TGLs = 2,3,4-13+14 ]	

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 231

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603421

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen

Hematopoietic Cell Proliferation

Mild

\* Uterus

Polyp Stromal

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 232

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603422

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
* Clitoral Gland		Hyperplasia	Moderate
		Inflammation	Mild
* Eye	Retina	Atrophy	Moderate
		Cataract	Moderate
	[ Cataract TGLs = 1-10 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 2-7+13 ]		
	[ Clear Cell Focus TGLs = 2-6 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 232

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603422

ORGAN AND ACCOUNTABLE SITE STATUS

[ Necrosis TGLs = 3-14 ]

* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 233

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603423

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hypertrophy	Minimal
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Leukemia Mononuclear	
* Heart		Leukemia Mononuclear	
* Intestine Large, Rectum		Leukemia Mononuclear	
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Leukemia Mononuclear	
		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 2-6+7 ]		
* Lung		Leukemia Mononuclear	
Lymph Node	Pancreatic	Leukemia Mononuclear	
	Mediastinal	Leukemia Mononuclear	
	Deep Cervical	Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 3-14 ]		
	[ Leukemia Mononuclear TGLs = 4-15 ]		
	[ Leukemia Mononuclear TGLs = 5-16 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 233

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603423

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 7-17 ]		
* Mammary Gland		Leukemia Mononuclear	
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Ovary		Leukemia Mononuclear	
* Pancreas		Leukemia Mononuclear	
* Pituitary Gland	Pars Distalis	Adenoma	
		Leukemia Mononuclear	
	[ Adenoma TGLs = 6-8 ]		
* Spleen	Capsule	Fibrosis	Minimal
		Leukemia Mononuclear	
		Pigmentation	Minimal
	[ Leukemia Mononuclear TGLs = 1-13 ]		
* Thymus		Leukemia Mononuclear	
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Urinary Bladder		Leukemia Mononuclear	
* Uterus		Leukemia Mononuclear	



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 234

TRT#: 2

SEX: Female

DAY ON TEST: 645

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603424

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
	Pelvis	Inflammation	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Diffuse, Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 2-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
* Pituitary Gland		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 234

TRT#: 2

SEX: Female

DAY ON TEST: 645

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603424

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen	Pars Distalis	Hyperplasia	Mild
		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
Vagina		Schwannoma Malignant	

[ Schwannoma Malignant TGLs = 1-13 ]

PRIMARY CAUSE OF DEATH - Vagina Schwannoma Malignant

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 235

TRT#: 2

SEX: Female

DAY ON TEST: 701

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603425

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                          |                             |                          |
|----------------------------|--------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel             | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus              | * Eye                       | * Harderian Gland        |
| * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Ovary                     | * Pancreas               |
| * Parathyroid Gland        | * Salivary Glands        | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Trachea                  | * Urinary Bladder        | * Uterus                    |                          |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                           |                                       |                               |                      |
|---------------------------|---------------------------------------|-------------------------------|----------------------|
| * Adrenal Cortex          |                                       | Angiectasis                   | Mild                 |
|                           |                                       | Degeneration                  | Cystic, Mild         |
| * Bone Marrow             |                                       | Leukemia Mononuclear          |                      |
| * Heart                   |                                       | Cardiomyopathy                | Minimal              |
| * Intestine Large, Rectum |                                       | Parasite Metazoan             |                      |
| * Kidney                  |                                       | Accumulation, Hyaline Droplet | Minimal              |
|                           |                                       | Mineralization                | Minimal              |
|                           |                                       | Nephropathy                   | Minimal              |
|                           |                                       | Pigmentation                  | Minimal              |
| * Liver                   |                                       | Basophilic Focus              |                      |
|                           |                                       | Fatty Change                  | Diffuse, Mild        |
|                           |                                       | Leukemia Mononuclear          |                      |
|                           | [ Leukemia Mononuclear TGLs = 4-6+7 ] |                               |                      |
| * Lung                    |                                       | Leukemia Mononuclear          |                      |
| * Lymph Node, Mesenteric  |                                       | Leukemia Mononuclear          |                      |
| * Mammary Gland           |                                       | Fibroadenoma                  |                      |
| * Nose                    | Glands, Respirat Epith                | Metaplasia                    | Respiratory, Minimal |
| * Pituitary Gland         | Pars Distalis                         | Adenoma                       |                      |
|                           | [ Adenoma TGLs = 2-8 ]                |                               |                      |
| * Skin                    |                                       | Basal Cell Carcinoma          |                      |
|                           | [ Basal Cell Carcinoma TGLs = 1-13 ]  |                               |                      |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

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**ANIMAL ID:** 235

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 701

**DOSE:** 0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603425

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Spleen

Leukemia Mononuclear

[ Leukemia Mononuclear TGLs = 3-14 ]

\* Thymus

Atrophy

Moderate

\* Thyroid Gland

Follicular Cel

Adenoma

---

PRIMARY CAUSE OF DEATH

- Spleen Leukemia Mononuclear

---

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 236

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603426

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Papilla	Fibrosis	Mild
	Pelvis, Transit Epithe	Hyperplasia	Mild
		Infarct	Moderate
	Pelvis	Inflammation	Mild
		Mineralization	Minimal
		Pigmentation	Minimal
	[ Infarct TGLs = 5,7,8-17 ]		
* Liver		Basophilic Focus	
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 6-6+7 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2,3-13+14+15 ]		
* Nose		Inflammation	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 236

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603426

ORGAN AND ACCOUNTABLE SITE STATUS

[ Hyperplasia TGLs = 9-8 ]			
* Skin		Liposarcoma	
[ Liposarcoma TGLs = 4-16 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 237

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603427

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Degeneration	Cystic, Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear Cl, Mild
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Moderate
	[ Cyst TGLs = 2-8 ]		
	[ Hyperplasia TGLs = 2-8 ]		
* Skin		Fibrosarcoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 237

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603427

**ORGAN AND ACCOUNTABLE SITE STATUS**

Note: TGL 1 affected skin of right lower eyelid.

[ Fibrosarcoma TGLs = 1-13 ]

* Spleen		Pigmentation	Mild
* Stomach, Glandular		Mineralization	Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 238

TRT#: 2

SEX: Female

DAY ON TEST: 701

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603428

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Clitoral Gland		Hyperplasia	Moderate
		Inflammation	Mild
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Mild
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 2-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 3-14 ]		
* Nose	Respirat Epi	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Spleen		Pigmentation	Moderate
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 238

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 701

**DOSE:** 0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603428

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 239

TRT#: 2

SEX: Female

DAY ON TEST: 673

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603429

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Marked
* Clitoral Gland		Inflammation	Mild
* Kidney		Accumulation, Hyaline Droplet	Mild
		Mineralization	Minimal
		Pigmentation	Mild
* Liver	Bile Duct	Hyperplasia	Mild
	Oval Cell	Hyperplasia	Mild
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 4-6+7 ]		
* Lung	Alveolar Epith	Hyperplasia	Mild
		Inflammation	Mild
		Leukemia Mononuclear	
		Metaplasia	Squamous, Minimal
		Note: The inflammation was focal and contained a foreign material.	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Hyperplasia	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 239

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 673

**DOSE:** 0 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603429

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
* Pancreas	Olfactory Epi	Metaplasia	Respiratory, Mild
	Acinus	Atrophy	Minimal
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Spleen	Capsule	Fibrosis	Mild
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 2-5 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
* Uterus		Cyst	
		Leukemia Mononuclear	
		Polyp Stromal	
	[ Cyst TGLs = 3-13 ]		

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 240

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603430

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Infarct	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 240

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603430

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
[ Adenoma TGLs = 3-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Leukemia Mononuclear	
		Pigmentation	Minimal
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 241

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603431

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Adenoma	
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Basophilic Focus TGLs = 5-6+7 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Minimal
	[ Fibroadenoma TGLs = 1,2,3-13+14+15 ]		
* Nose	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 241

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603431

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas		Cyst	
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
	[ Adenoma TGLs = 4-8 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 242

TRT#: 2

SEX: Female

DAY ON TEST: 600

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603432

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                           |                             |                          |                            |
|---------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Cortex          | Blood Vessel                | * Bone                   | * Bone Marrow              |
| * Brain                   | * Clitoral Gland            | * Esophagus              | * Eye                      |
| * Harderian Gland         | * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   |
| * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic      | * Lung                      | * Ovary                  | * Parathyroid Gland        |
| * Salivary Glands         | * Skin                      | * Stomach, Forestomach   | * Stomach, Glandular       |
| * Trachea                 | * Urinary Bladder           | * Uterus                 |                            |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |  |               |                               |                     |
|--|---------------|-------------------------------|---------------------|
| * Adrenal Medulla                      |               | Pheochromocytoma Benign       |                     |
| [ Pheochromocytoma Benign TGLs = 1-8 ] |               |                               |                     |
| * Eye                                  |               |                               |                     |
| Note: Optic nerve on slide 9.          |               |                               |                     |
| * Kidney                               |               | Accumulation, Hyaline Droplet | Mild                |
|  |               | Mineralization                | Minimal             |
|  |               | Nephropathy                   | Minimal             |
| * Liver                                |               | Basophilic Focus              |                     |
|  |               | Eosinophilic Focus            |                     |
|  |               | Inflammation                  | Minimal             |
|  |               | Mixed Cell Focus              |                     |
| [ Basophilic Focus TGLs = 3-6+7+13 ]   |               |                               |                     |
| [ Eosinophilic Focus TGLs = 3-7 ]      |               |                               |                     |
| [ Mixed Cell Focus TGLs = 3-13 ]       |               |                               |                     |
| * Lymph Node, Mesenteric               |               | Infiltration Cellular         | Histiocyte, Minimal |
| * Mammary Gland                        |               | Cyst                          |                     |
|  |               | Hyperplasia                   | Mild                |
| [ Cyst TGLs = 4-13 ]                   |               |                               |                     |
| [ Hyperplasia TGLs = 4-13 ]            |               |                               |                     |
| * Nose                                 | Olfactory Epi | Accumulation, Hyaline Droplet | Minimal             |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 242

TRT#: 2

SEX: Female

DAY ON TEST: 600

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603432

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Acinus	Inflammation Atrophy Infiltration Cellular	Minimal Minimal Mononuclear CI, Minimal
* Pituitary Gland [ Adenoma TGLs = 2-8 ]	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Adrenal Medulla Pheochromocytoma Benign

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 243

TRT#: 2

SEX: Female

DAY ON TEST: 685

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0603433

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Diffuse, Mild
* Lung		Fibrosis	Mild
		Inflammation	Minimal
		Metaplasia	Squamous, Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pancreas	Duct	Fibrosis	Mild
		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 243

TRT#: 2

SEX: Female

DAY ON TEST: 685

DOSE: 0 MG/KG

DISP: Natural Death

HISTO: 0603433

ORGAN AND ACCOUNTABLE SITE STATUS

\* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma  
CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 244

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603434

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Marked
* Clitoral Gland		Cyst	
* Heart		Cardiomyopathy	Minimal
* Kidney		Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 4-6+7 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	Note: The fibroadenoma was very cystic.		
	[ Fibroadenoma TGLs = 2-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 6-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
* Ovary		Cyst	
	[ Cyst TGLs = 5-11 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 244

TRT#: 2

SEX: Female

DAY ON TEST: 730

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603434

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 1-8 ]			
* Spleen	Capsule	Fibrosis	Minimal
		Leukemia Mononuclear	
		Pigmentation	Minimal
[ Leukemia Mononuclear TGLs = 3-5 ]			
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 245

TRT#: 2

SEX: Female

DAY ON TEST: 625

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603435

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
* Bone Marrow		Hyperplasia	Minimal
* Eye		Cataract	Moderate
	Ciliary Body, Cornea	Inflammation	Marked
Note: Optic nerve on slide 9.			
	[ Cataract TGLs = 1-10 ]		
	[ Inflammation TGLs = 1-10 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Basophilic Focus TGLs = 5-15 ]		
* Lung	Alveolar Epith	Hyperplasia	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 245

TRT#: 2

SEX: Female

DAY ON TEST: 625

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603435

**ORGAN AND ACCOUNTABLE SITE STATUS**

	[ Fibroadenoma TGLs = 2-13 ]			
Mesentery		Fat	Necrosis	Moderate
	[ Necrosis TGLs = 4-14 ]			
* Nose		Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
			Inflammation	Minimal
* Pancreas		Acinus	Atrophy	Minimal
			Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland			Cyst	
		Pars Distalis	Hyperplasia	Moderate
	[ Hyperplasia TGLs = 3-8 ]			
* Spleen			Hematopoietic Cell Proliferation	Minimal
			Pigmentation	Mild
* Thymus			Atrophy	Mild
* Thyroid Gland		C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Eye Ciliary Body Cornea Inflammation



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 246

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603436

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Kidney	* Lung	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2,3-13+14+15 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 4-8 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 247

TRT#: 2

SEX: Female

DAY ON TEST: 713

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603437

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear Vacuolization Cytoplasmic	Moderate
* Adrenal Medulla		Leukemia Mononuclear	
* Bone Marrow		Leukemia Mononuclear	
* Clitoral Gland		Cyst	
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Leukemia Mononuclear	
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
	[ Nephropathy TGLs = 4-5 ]		
* Liver		Fatty Change	Diffuse, Mild
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 2-6+7 ]		
* Lung		Leukemia Mononuclear	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pancreas	Acinus	Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 247

TRT#: 2

SEX: Female

DAY ON TEST: 713

DOSE: 0 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603437

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Cyst	
* Spleen	Capsule	Hyperplasia	Moderate
		Fibrosis	Minimal
		Leukemia Mononuclear	
		Necrosis	Moderate
	[ Leukemia Mononuclear TGLs = 3-5 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Mild
		Ulcer	Moderate
	[ Ulcer TGLs = 5-14 ]		
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

CONTRIBUTORY CAUSE OF DEATH - Mammary Gland Fibroadenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 248

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603438

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Clitoral Gland		Hyperplasia	Minimal
		Inflammation	Minimal
* Harderian Gland		Inflammation	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Mild
		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Hepatodiaphragmatic Nodule TGLs = 2-14 ]		
* Lung	Alveolar Epith	Hyperplasia	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 248

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603438

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 3-8 ]	Glands, Respirat Epith Glands, Respirat Epith Pars Distalis	Dilatation Metaplasia Adenoma	Minimal Respiratory, Minimal
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell C Cell	Adenoma Hyperplasia	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 249

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603439

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Cyst	
* Harderian Gland		Inflammation	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 5-6+7 ]		
* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2,3-13+14+15 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 6-16 ]		
* Nose	Glands, Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 249

TRT#: 2

SEX: Female

DAY ON TEST: 728

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603439

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas		Cyst	
* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
	[ Adenoma TGLs = 4-8 ]		
* Spleen		Leukemia Mononuclear	
		Pigmentation	Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 250

TRT#: 2

SEX: Female

DAY ON TEST: 729

DOSE: 0 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603440

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Moderate
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Intestine Small, Jejunum		Leiomyosarcoma	
	[ Leiomyosarcoma TGLs = 1-13 ]		
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 2-6+7+14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Inflammation	Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 250

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 0 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603440

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Moderate

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 251

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603441

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Hyperplasia	Mild
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Hepatocellular Adenoma TGLs = 4-14 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-14 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 251

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603441

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Nose	Olfactory Epi Respirat Epith Glands, Transit Epithe  Glands, Respirat Epith	Accumulation, Hyaline Droplet Accumulation, Hyaline Droplet Hyperplasia Inflammation Metaplasia Granulosa Cell Tumor Benign	Moderate Minimal Minimal Minimal Respiratory, Minimal
* Ovary	[ Granulosa Cell Tumor Benign TGLs = 2-13 ]		
* Pancreas		Cyst	
* Pituitary Gland	Pars Distalis	Infiltration Cellular	Mononuclear CI, Minimal
	[ Adenoma TGLs = 3-15 ]	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	
	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 252

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603442

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Adenoma	
		Inflammation	Minimal
* Eye	Retina	Atrophy	Moderate
		Cataract	Moderate
	[ Cataract TGLs = 1-10 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Respirat Epith	Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
	[ Hyperplasia TGLs = 3-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 252

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603442

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
[ Polyp Stromal TGLs = 2-13 ]			

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 253

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603443

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 2-14 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 1-13 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 253

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603443

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Hyperplasia TGLs = 3-15 ]	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Minimal Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 254

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603444

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Intestine Small, Jejunum		Hyperplasia	Lymphoid, Moderate
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Basophilic Focus TGLs = 5-16 ]		
	[ Eosinophilic Focus TGLs = 6-17 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 4-15 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 254

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603444

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 7-18 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
[ Polyp Stromal TGLs = 3-15 ]			

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 255

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603445

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Moderate
		Vacuolization Cytoplasmic	Mild
* Clitoral Gland		Adenoma	
[ Adenoma TGLs = 1-12 ]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
[ Basophilic Focus TGLs = 2-6+7+13 ]			
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 255

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603445

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 3-8 ]	Pars Distalis	Adenoma	
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 256

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603446

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
* Clitoral Gland		Cyst	
		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
Note: Foreign material was present in the focus of inflammation.			
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
* Spleen	Lymph Follic	Atrophy	Moderate
		Congestion	Mild

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

---

**ANIMAL ID:** 256

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603446

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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	Hematopoietic Cell Proliferation	Mild
	Pigmentation	Mild
* Thymus	Atrophy	Mild
* Uterus	Polyp Stromal	

---

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 257

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603447

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex	Angiectasis	Mild
	Hyperplasia	Minimal
* Clitoral Gland	Cyst	
	Hyperplasia	Mild
	[ Cyst TGLs = 3-12 ]	
	[ Hyperplasia TGLs = 3-12 ]	
* Eye		
	Note: Optic nerves on slide 9.	
* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Minimal
	Pigmentation	Minimal
* Liver	Basophilic Focus	
	Clear Cell Focus	
	Eosinophilic Focus	
	Inflammation	Minimal
	Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 5,6-15+16 ]	
* Lymph Node, Mesenteric	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland	Fibroadenoma	
	[ Fibroadenoma TGLs = 1-14 ]	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet
		Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 257

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603447

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Olfactory Epi	Accumulation, Hyaline Droplet	Marked
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
	[ Adenoma TGLs = 4-8 ]		
* Skin		Trichoepithelioma	
	[ Trichoepithelioma TGLs = 2-13 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 258

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603448

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Degeneration	Cystic, Minimal
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Mild
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 6-18 ]		
	[ Eosinophilic Focus TGLs = 7-19 ]		
	[ Fatty Change TGLs = 5-17 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 2,3,4-14+15+16 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 258

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603448

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith Acinus	Metaplasia Atrophy	Respiratory, Minimal Mild
* Pituitary Gland		Cyst	
* Skin	Pars Distalis	Hyperplasia Cyst Epithelial Inclusion	Moderate Moderate
* Spleen	[ Cyst Epithelial Inclusion TGLs = 1-13 ]	Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy Pigmentation	Mesothelium, Minimal Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild
* Uterus		Polyp Stromal	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 259

TRT#: 4

SEX: Female

DAY ON TEST: 718

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603449

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | Blood Vessel             | * Bone                     | * Bone Marrow             |
| * Brain                     | * Esophagus              | * Eye                      | * Harderian Gland         |
| * Heart                     | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Lymph Node, Mesenteric | * Ovary                    | * Pancreas                |
| * Parathyroid Gland         | * Salivary Glands        | * Skin                     | * Stomach, Forestomach    |
| * Stomach, Glandular        | * Thymus                 | * Trachea                  | * Urinary Bladder         |
| * Uterus                    |                          |                            |                           |

**MISSING**

- \* Lymph Node, Mandibular

**AUTO PRECLUDES DIAG.**

- \* Thyroid Gland

**OBSERVATIONS**

- |                   |                              |                    |                      |
|-------------------|------------------------------|--------------------|----------------------|
| * Adrenal Cortex  |                              | Hyperplasia        | Minimal              |
| * Clitoral Gland  |                              | Cyst               |                      |
|                   |                              | Inflammation       | Minimal              |
| * Kidney          |                              | Pigmentation       | Minimal              |
| * Liver           |                              | Basophilic Focus   |                      |
|                   |                              | Eosinophilic Focus |                      |
| * Mammary Gland   |                              | Fibroadenoma       |                      |
|                   | [ Fibroadenoma TGLs = 1-13 ] |                    |                      |
| * Nose            | Glands, Transit Epithe       | Hyperplasia        | Minimal              |
|                   | Respirat Epith               | Hyperplasia        | Minimal              |
|                   | Glands, Respirat Epith       | Hyperplasia        | Minimal              |
|                   | Glands, Respirat Epith       | Metaplasia         | Respiratory, Minimal |
| * Pituitary Gland | Pars Distalis                | Adenoma            |                      |
|                   | [ Adenoma TGLs = 2-8 ]       |                    |                      |
| * Spleen          |                              | Pigmentation       | Moderate             |

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 260

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603450

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Clitoral Gland		Cyst	
		Hyperplasia	Mild
		Inflammation	Moderate
	[ Cyst TGLs = 1-12 ]		
* Heart		Cardiomyopathy	Mild
* Kidney		Pigmentation	Minimal
* Liver		Angiectasis	Moderate
		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Angiectasis TGLs = 4-15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 3-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 260

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603450

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Moderate
* Skin		Schwannoma Malignant	
	[ Schwannoma Malignant TGLs = 2-13 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
Tooth	Peridont Tiss	Inflammation	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 261

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603451

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Cyst	
		Nephropathy	Minimal
		Pigmentation	Minimal
		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 261

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603451

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland		Inflammation	Minimal
		Cyst	
	Pars Distalis	Hyperplasia	Mild
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 262

TRT#: 4

SEX: Female

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603452

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| Blood Vessel               | * Bone                    | * Bone Marrow               | * Brain                  |
| * Esophagus                | * Eye                     | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Mammary Gland          |
| * Ovary                    | * Parathyroid Gland       | * Salivary Glands           | * Skin                   |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                                  |                               |                     |
|----------------------------------|-------------------------------|---------------------|
| * Adrenal Cortex                 | Adenoma                       |                     |
|                                  | Angiectasis                   | Minimal             |
|                                  | Hypertrophy                   | Minimal             |
|                                  | Vacuolization Cytoplasmic     | Minimal             |
| * Adrenal Medulla                | Pheochromocytoma Benign       |                     |
| * Clitoral Gland                 | Hyperplasia                   | Minimal             |
|                                  | Inflammation                  | Mild                |
| * Heart                          | Cardiomyopathy                | Minimal             |
| * Kidney                         | Accumulation, Hyaline Droplet | Minimal             |
|                                  | Mineralization                | Minimal             |
|                                  | Nephropathy                   | Minimal             |
|                                  | Pigmentation                  | Minimal             |
| * Liver                          | Basophilic Focus              |                     |
|                                  | Clear Cell Focus              |                     |
|                                  | Eosinophilic Focus            |                     |
|                                  | Fatty Change                  | Focal, Minimal      |
|                                  | Inflammation                  | Minimal             |
|                                  | Mixed Cell Focus              |                     |
| [ Basophilic Focus TGLs = 2-14 ] |                               |                     |
| * Lymph Node, Mesenteric         | Infiltration Cellular         | Histiocyte, Minimal |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 262

TRT#: 4

SEX: Female

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603452

**ORGAN AND ACCOUNTABLE SITE STATUS**

Mesentery [ Necrosis TGLs = 1-13 ]	Fat	Necrosis	Moderate
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Transit Epithe	Adenoma	
* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Acinus	Atrophy	Mild
	Pars Distalis	Cyst	
[ Cyst TGLs = 3-15 ]		Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 263

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603453

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
* Clitoral Gland		Hyperplasia	Mild
		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Mild
	Pelvis, Transit Epithe	Hyperplasia	Mild
	Pelvis	Inflammation	Moderate
		Mineralization	Minimal
		Nephropathy	Marked
		Pigmentation	Moderate
Note: One kidney was sclerotic. [ Nephropathy TGLs = 1-5 ]			
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
[ Basophilic Focus TGLs = 2,3-13+14 ] [ Mixed Cell Focus TGLs = 2-13 ]			
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 263

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603453

ORGAN AND ACCOUNTABLE SITE STATUS

	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Inflammation	Minimal
* Pancreas		Cyst	
* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
	[ Adenoma TGLs = 4-8 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 264

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603454

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
* Clitoral Gland		Hyperplasia	Moderate
		Inflammation	Mild
	[ Hyperplasia TGLs = 2-12 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Fatty Change	Diffuse, Minimal
		Inflammation	Minimal
* Mammary Gland		Hyperplasia	Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 264

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603454

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland [ Adenoma TGLs = 1-8 ]	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 265

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603455

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Mild
* Clitoral Gland		Cyst	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Respirat Epi	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 265

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603455

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Spleen		Cyst	
		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Adenocarcinoma	
	[ Adenocarcinoma TGLs = 2-14 ]		

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 266

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603456

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Clitoral Gland		Hyperplasia	Minimal
		Inflammation	Minimal
* Eye	Retina	Atrophy	Moderate
		Cataract	Marked
	[ Cataract TGLs = 1-10 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 2,3-13+14 ]		
* Nose		Inflammation	Minimal
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 266

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603456

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hyperplasia TGLs = 4-8 ]

\* Spleen

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

---



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 267

TRT#: 4

SEX: Female

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603457

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 268

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603458

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Moderate
* Adrenal Medulla		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
	Pelvis, Transit Epithe	Hyperplasia	Minimal
	Pelvis	Inflammation	Mild
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Hepatodiaphragmatic Nodule TGLs = 3-15 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 2-14 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 268

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603458

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 269

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603459

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Minimal
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	Note: The tumor contained cyst-like structures with eosinophilic crystals.		
	[ Adenoma TGLs = 3-8 ]		
* Spleen		Congestion	Minimal

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 269

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603459

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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	Hematopoietic Cell Proliferation	Mild
	Pigmentation	Moderate
* Thymus	Atrophy	Moderate

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 270

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603460

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Brain                  |
| * Esophagus                | * Eye                     | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Trachea                  | * Urinary Bladder         | * Uterus                    |                          |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                          |                            |                               |                         |
|--------------------------|----------------------------|-------------------------------|-------------------------|
| * Adrenal Cortex         |                            | Angiectasis                   | Minimal                 |
|                          |                            | Vacuolization Cytoplasmic     | Minimal                 |
| * Bone Marrow            |                            | Hyperplasia                   | Moderate                |
| * Clitoral Gland         |                            | Inflammation                  | Minimal                 |
| * Heart                  |                            | Cardiomyopathy                | Minimal                 |
| * Kidney                 |                            | Nephropathy                   | Minimal                 |
|                          |                            | Pigmentation                  | Minimal                 |
| * Liver                  |                            | Basophilic Focus              |                         |
|                          |                            | Fatty Change                  | Focal, Mild             |
|                          |                            | Inflammation                  | Minimal                 |
| * Lung                   | Alveolus                   | Infiltration Cellular         | Histiocyte, Minimal     |
| * Lymph Node, Mesenteric |                            | Infiltration Cellular         | Histiocyte, Minimal     |
| * Nose                   | Respirat Epith             | Accumulation, Hyaline Droplet | Mild                    |
|                          | Olfactory Epi              | Accumulation, Hyaline Droplet | Moderate                |
|                          | Glands, Respirat Epith     | Metaplasia                    | Respiratory, Minimal    |
| * Pancreas               |                            | Infiltration Cellular         | Mononuclear Cl, Minimal |
| * Pituitary Gland        | Pars Distalis              | Hyperplasia                   | Marked                  |
|                          | [ Hyperplasia TGLs = 2-8 ] |                               |                         |
| * Skin                   |                            | Fibroma                       |                         |
|                          | [ Fibroma TGLs = 1-13 ]    |                               |                         |
| * Spleen                 | Lymph Follic               | Atrophy                       | Moderate                |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 270

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603460

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

---

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 271

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603461

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | Blood Vessel               | * Bone                    | * Bone Marrow               |
| * Brain                  | * Esophagus                | * Eye                     | * Harderian Gland           |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Mesenteric | * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           |
| * Skin                   | * Stomach, Glandular       | * Thyroid Gland           | * Trachea                   |
| * Urinary Bladder        | * Uterus                   |                           |                             |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                  |                                   |                           |                |
|------------------|-----------------------------------|---------------------------|----------------|
| * Adrenal Cortex |                                   | Angiectasis               | Mild           |
|                  |                                   | Hypertrophy               | Minimal        |
|                  |                                   | Vacuolization Cytoplasmic | Mild           |
| * Clitoral Gland |                                   | Cyst                      |                |
|                  |                                   | Inflammation              | Mild           |
| * Heart          |                                   | Cardiomyopathy            | Mild           |
| * Kidney         |                                   | Mineralization            | Mild           |
|                  |                                   | Nephropathy               | Minimal        |
|                  |                                   | Pigmentation              | Minimal        |
| * Liver          |                                   | Basophilic Focus          |                |
|                  |                                   | Clear Cell Focus          |                |
|                  |                                   | Eosinophilic Focus        |                |
|                  |                                   | Fatty Change              | Focal, Minimal |
|                  | Bile Duct                         | Fibrosis                  | Minimal        |
|                  |                                   | Inflammation              | Minimal        |
| * Mammary Gland  |                                   | Fibroadenoma              | Multiple       |
|                  | [ Fibroadenoma TGLs = 2,3-13+14 ] |                           |                |
| * Nose           | Glands, Respirat Epith            | Dilatation                | Minimal        |
|                  |                                   | Foreign Body              |                |
|                  | Respirat Epith                    | Hyperplasia               | Mild           |

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 271

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603461

ORGAN AND ACCOUNTABLE SITE STATUS

* Ovary		Inflammation Cyst	Mild
Note: The cyst was a bursal cyst. [ Cyst TGLs = 1-11 ]			
* Pituitary Gland	Pars Distalis	Adenoma Cyst	
[ Adenoma TGLs = 4-8 ]			
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Mild
* Stomach, Forestomach		Hyperplasia	Squamous, Minimal
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 272

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603462

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 2-7+14 ]		
	[ Eosinophilic Focus TGLs = 2-6 ]		
* Lung	Alveolar Epith	Hyperplasia	Moderate
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 1-13 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 272

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603462

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Parathyroid Gland		Hyperplasia	Diffuse, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 3-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 273

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603463

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                          |                             |                          |
|----------------------------|--------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel             | * Bone                      | * Bone Marrow            |
| * Brain                    | * Esophagus              | * Eye                       | * Harderian Gland        |
| * Intestine Large, Cecum   | * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic     | * Lung                      | * Ovary                  |
| * Pancreas                 | * Parathyroid Gland      | * Salivary Glands           | * Skin                   |
| * Stomach, Forestomach     | * Stomach, Glandular     | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                          |                             |                          |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                           |                        |                               |                     |
|---------------------------|------------------------|-------------------------------|---------------------|
| * Adrenal Cortex          |                        | Angiectasis                   | Mild                |
|                           |                        | Hyperplasia                   | Mild                |
|                           |                        | Vacuolization Cytoplasmic     | Mild                |
| * Clitoral Gland          |                        | Inflammation                  | Minimal             |
| * Heart                   |                        | Cardiomyopathy                | Minimal             |
| * Intestine Large, Rectum |                        | Parasite Metazoan             |                     |
| * Kidney                  |                        | Accumulation, Hyaline Droplet | Minimal             |
|                           |                        | Mineralization                | Minimal             |
|                           |                        | Nephropathy                   | Mild                |
| * Liver                   |                        | Angiectasis                   | Minimal             |
|                           |                        | Basophilic Focus              |                     |
|                           |                        | Eosinophilic Focus            |                     |
|                           | Bile Duct              | Hyperplasia                   | Minimal             |
|                           |                        | Inflammation                  | Minimal             |
| * Lymph Node, Mesenteric  |                        | Infiltration Cellular         | Histiocyte, Minimal |
| * Mammary Gland           |                        | Hyperplasia                   | Mild                |
| * Nose                    | Olfactory Epi          | Accumulation, Hyaline Droplet | Moderate            |
|                           | Respirat Epith         | Accumulation, Hyaline Droplet | Mild                |
|                           | Glands, Respirat Epith | Dilatation                    | Minimal             |
|                           | Respirat Epith         | Hyperplasia                   | Minimal             |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 273

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603463

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 1-8 ]	Glands, Respirat Epith Pars Distalis	Inflammation Metaplasia Adenoma	Minimal Respiratory, Minimal
* Spleen	Capsule	Hematopoietic Cell Proliferation Hypertrophy Pigmentation	Mild Mesothelium, Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell C Cell	Adenoma Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 274

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603464

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Degeneration	Cystic, Minimal
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
	[ Basophilic Focus TGLs = 1,2,3-13+14+15 ]		
* Mammary Gland		Hyperplasia	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
	[ Hyperplasia TGLs = 4-8 ]		
* Spleen		Congestion	Minimal

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

---

**ANIMAL ID:** 274

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603464

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 275

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603465

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Pigmentation	Moderate
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Atrophy	Moderate
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Mild
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
* Ovary		Atrophy	Mild
* Pituitary Gland		Fibrosis	Mild
	Pars Distalis	Hyperplasia	Mild
		Pigmentation	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 275

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603465

ORGAN AND ACCOUNTABLE SITE STATUS

[ Fibrosis TGLs = 2-8 ]

\* Skin

Basal Cell Adenoma

[ Basal Cell Adenoma TGLs = 1-13 ]

\* Spleen

Pigmentation

Mild

\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 276

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603466

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary
* Pancreas	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[ Hepatodiaphragmatic Nodule TGLs = 3-15 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 4-16 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 276

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603466

ORGAN AND ACCOUNTABLE SITE STATUS

* Parathyroid Gland		Hyperplasia	Diffuse, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
	[ Adenoma TGLs = 5-8 ]		
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 277

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603467

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Cyst	
* Harderian Gland		Inflammation	Moderate
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Minimal
[ Fibroadenoma TGLs = 3-14 ]			
Mesentery	Fat	Necrosis	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 277

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603467

ORGAN AND ACCOUNTABLE SITE STATUS

	[ Necrosis TGLs = 1-13 ]			
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal	
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild	
	Glands, Respirat Epith	Hyperplasia	Minimal	
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal	
* Pituitary Gland	Pars Distalis	Adenoma		
	[ Adenoma TGLs = 2-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild	
	Capsule	Hypertrophy	Mesothelium, Minimal	
		Pigmentation	Mild	
* Thymus		Atrophy	Mild	
* Thyroid Gland	C Cell	Hyperplasia	Moderate	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 278

TRT#: 4

SEX: Female

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603468

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Ovary		Granulosa Cell Tumor Malignant	
	[ Granulosa Cell Tumor Malignant TGLs = 2-14 ]		
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 278

TRT#: 4

SEX: Female

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603468

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin		Fibroma	
[ Fibroma TGLs = 1-13 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 279

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603469

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Clitoral Gland		Adenoma	
		Inflammation	Mild
	[ Adenoma TGLs = 1-15 ]		
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 2-13 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Marked
	Glands, Respirat Epith	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 279

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603469

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 3-8 ]	Pars Distalis	Adenoma	
* Spleen [ Hyperplasia TGLs = 4-14 ]	Red Pulp	Hematopoietic Cell Proliferation	Mild
	Capsule	Hyperplasia	Moderate
		Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 280

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603470

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Colon		Parasite Metazoan	
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
* Pituitary Gland	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 281

TRT#: 4

SEX: Female

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603471

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Clitoral Gland		Carcinoma	
		Inflammation	Moderate
	[ Carcinoma TGLs = 1-13 ]		
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
	Endocardium	Hyperplasia	Mild
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Hepatodiaphragmatic Nodule TGLs = 3-15 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 281

TRT#: 4

SEX: Female

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603471

ORGAN AND ACCOUNTABLE SITE STATUS

Mesentery [ Necrosis TGLs = 2-14 ]	Fat	Necrosis	Moderate
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
* Pituitary Gland	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
		Cyst	
* Spleen	Pars Distalis	Hyperplasia	Mild
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 282

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603472

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Bone Marrow		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
	[ Eosinophilic Focus TGLs = 1,2-13,14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Marked
	Respirat Epith	Accumulation, Hyaline Droplet	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Acinus	Atrophy	Minimal
		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 282

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603472

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Spleen	Pars Distalis	Hyperplasia	Mild
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal
* Thymus		Atrophy	Mild
Vagina		Polyp	
[ Polyp TGLs = 3-15 ]			

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 283

TRT#: 4

SEX: Female

DAY ON TEST: 611

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603473

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Clitoral Gland		Inflammation	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Carcinoma	
	[ Carcinoma TGLs = 2-13 ]		
* Nose	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Duct	Inflammation	Chronic Active, Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Skin		Fibroma	
	[ Fibroma TGLs = 3-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

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**ANIMAL ID:** 283

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 611

**DOSE:** 6 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603473

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

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**PRIMARY CAUSE OF DEATH**

- Pituitary Gland Pars Distalis Adenoma

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TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 284

TRT#: 4

SEX: Female

DAY ON TEST: 37

DOSE: 6 MG/KG

DISP: Accidentally Killed

HISTO: 0603474

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Liver	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Bone Marrow		Hyperplasia	Mild
* Brain		Hemorrhage	Mild
* Kidney		Mineralization	Minimal
* Nose	Glands, Transit Epithe	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal

PRIMARY CAUSE OF DEATH

- Brain Hemorrhage

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 285

TRT#: 4

SEX: Female

DAY ON TEST: 688

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603475

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Minimal
	[ Fibroadenoma TGLs = 2,3-13+14 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 285

TRT#: 4

SEX: Female

DAY ON TEST: 688

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603475

ORGAN AND ACCOUNTABLE SITE STATUS

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 286

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603476

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Degeneration	Cystic, Minimal
		Hyperplasia	Minimal
		Hypertrophy	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral GI			
Note: One clitoral gland missing.			
* Eye	Retina	Atrophy	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	Multiple
[ Fibroadenoma TGLs = 1,2,3-13+14+15 ]			
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pancreas		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 286

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603476

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
[ Adenoma TGLs = 4-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 287

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603477

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
			Note: A hair shaft was embedded in the focus of inflammation.
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
	Pelvis	Inflammation	Mild
		Nephropathy	Minimal
* Liver		Basophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Minimal
	[ Fibroadenoma TGLs = 1,2,3,4-13+14+15+16 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 287

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603477

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pancreas		Cyst	
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Minimal
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 288

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603478

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                             |                          |                            |                           |
|-----------------------------|--------------------------|----------------------------|---------------------------|
| * Adrenal Medulla           | Blood Vessel             | * Bone                     | * Bone Marrow             |
| * Brain                     | * Clitoral Gland         | * Esophagus                | * Eye                     |
| * Harderian Gland           | * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum |
| * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      |
| * Lung                      | * Mammary Gland          | * Ovary                    | * Parathyroid Gland       |
| * Salivary Glands           | * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      |
| * Trachea                   | * Urinary Bladder        |                            |                           |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                          |                                       |                                  |                         |
|--------------------------|---------------------------------------|----------------------------------|-------------------------|
| * Adrenal Cortex         |                                       | Angiectasis                      | Mild                    |
| * Heart                  |                                       | Cardiomyopathy                   | Minimal                 |
| * Kidney                 |                                       | Nephropathy                      | Minimal                 |
|                          |                                       | Pigmentation                     | Minimal                 |
| * Liver                  |                                       | Basophilic Focus                 |                         |
|                          |                                       | Clear Cell Focus                 |                         |
|                          | Bile Duct                             | Hyperplasia                      | Minimal                 |
|                          |                                       | Inflammation                     | Minimal                 |
|                          |                                       | Mixed Cell Focus                 |                         |
|                          | [ Mixed Cell Focus TGLs = 1,2-13+14 ] |                                  |                         |
| * Lymph Node, Mesenteric |                                       | Infiltration Cellular            | Histiocyte, Minimal     |
| * Nose                   | Respirat Epith                        | Accumulation, Hyaline Droplet    | Minimal                 |
|                          | Olfactory Epi                         | Accumulation, Hyaline Droplet    | Moderate                |
|                          | Glands, Respirat Epith                | Metaplasia                       | Respiratory, Minimal    |
| * Pancreas               | Acinus                                | Atrophy                          | Mild                    |
|                          |                                       | Infiltration Cellular            | Mononuclear CI, Minimal |
| * Pituitary Gland        |                                       | Cyst                             |                         |
|                          | Pars Distalis                         | Hyperplasia                      | Moderate                |
|                          | [ Hyperplasia TGLs = 3-8 ]            |                                  |                         |
| * Spleen                 |                                       | Hematopoietic Cell Proliferation | Mild                    |

\* PROTOCOL REQUIRED TISSUE



**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

---

**ANIMAL ID:** 288

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603478

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

---

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 289

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603479

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Clitoral Gland		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Hepatodiaphragmatic Nodule TGLs = 6-16 ]		
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2,3-13+14+15 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Ovary		Cyst	
	[ Cyst TGLs = 5-11 ]		
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

---

ANIMAL ID: 289

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603479

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Adenoma TGLs = 4-8 ]

\* Spleen

Hematopoietic Cell Proliferation

Mild

Pigmentation

Moderate

\* Thymus

Atrophy

Moderate

---

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 290

TRT#: 4

SEX: Female

DAY ON TEST: 574

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603480

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Ovary	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Mild
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

[ Adenoma TGLs = 2-8 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 290

TRT#: 4

SEX: Female

DAY ON TEST: 574

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603480

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Skin		Keratoacanthoma	
	[ Keratoacanthoma TGLs = 1-13 ]		
* Spleen		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 291

TRT#: 4

SEX: Female

DAY ON TEST: 701

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603481

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Brain		Hydrocephalus	Mild
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
	[ Eosinophilic Focus TGLs = 2-14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
		Foreign Body	
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 291

TRT#: 4

SEX: Female

DAY ON TEST: 701

DOSE: 6 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603481

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Olfactory Epi	Metaplasia	Respiratory, Mild
* Ovary		Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 1-13 ]			
* Spleen	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 292

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603482

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Adenoma	
		Angiectasis	Minimal
		Degeneration	Cystic, Minimal
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Carcinoma	
		Inflammation	Mild
	[ Carcinoma TGLs = 1-13 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Hyperplasia	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 292

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603482

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland [ Adenoma TGLs = 2-8 ]	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 293

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603483

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
	Bile Duct	Cyst	
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear Cl, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 293

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603483

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Adenoma TGLs = 2-8 ]

\* Spleen

Capsule

Hematopoietic Cell Proliferation

Mild

Hypertrophy

Mesothelium, Minimal

Pigmentation

Mild

\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 294

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603484

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Degeneration	Cystic, Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
Note: One clitoral gland missing.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 6-15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2,4-13+14+15 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 294

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603484

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 3-8 ]	Pars Distalis	Adenoma	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Moderate
* Uterus [ Fibrosis TGLs = 5-13 ]	Myometrium	Fibrosis	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 295

TRT#: 4

SEX: Female

DAY ON TEST: 728

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603485

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Adenoma	
		Angiectasis	Mild
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Hyperplasia	Moderate
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Minimal
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 295

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603485

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Adenoma TGLs = 4-8 ]

\* Spleen

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

\* Thymus

Atrophy

Mild

\* Uterus

Polyp Stromal

[ Polyp Stromal TGLs = 3-15 ]

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TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 296

TRT#: 4

SEX: Female

DAY ON TEST: 617

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603486

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

AUTO PRECLUDES DIAG.

\* Thyroid Gland

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 1-13 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 296

TRT#: 4

SEX: Female

DAY ON TEST: 617

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603486

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 297

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603487

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Hepatodiaphragmatic Nodule	
		Mixed Cell Focus	
	[ Hepatodiaphragmatic Nodule	TGLs = 2-13 ]	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
		Inflammation	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 297

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603487

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Olfactory Epi Glands, Respirat Epith	Metaplasia Metaplasia Cyst	Respiratory, Mild Respiratory, Mild
[ Hyperplasia TGLs = 1-8 ]	Pars Distalis	Hyperplasia	Moderate
* Spleen		Hematopoietic Cell Proliferation Leukemia Mononuclear	Minimal
* Thymus		Pigmentation	Minimal
* Thyroid Gland	Follicular Cel C Cell	Atrophy Hyperplasia Hyperplasia	Moderate Minimal Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 298

TRT#: 4

SEX: Female

DAY ON TEST: 729

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603488

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Cyst	
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Eosinophilic Focus TGLs = 5,6-17+18 ]		
Lymph Node	Mediastinal	Ectasia	Mild
	[ Ectasia TGLs = 7-19 ]		
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,3-13+15 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Marked
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 298

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 6 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603488

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
* Ovary	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
		Cyst	
		Granulosa Cell Tumor Malignant	
	[ Cyst TGLs = 4-16 ]		
	[ Granulosa Cell Tumor Malignant TGLs = 4-16 ]		
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
	[ Adenoma TGLs = 8-8 ]		
* Skin		Fibroma	
	[ Fibroma TGLs = 2-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 299

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603489

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Angiectasis	Mild
		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
	[ Hepatodiaphragmatic Nodule TGLs = 3-15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Marked
	Glands, Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 299

TRT#: 4

SEX: Female

DAY ON TEST: 730

DOSE: 6 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603489

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pituitary Gland	Glands, Respirat Epith Pars Distalis	Metaplasia Adenoma Cyst	Respiratory, Mild
[ Adenoma TGLs = 4-8 ]			
* Spleen		Hematopoietic Cell Proliferation Pigmentation	Mild Mild
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 300

TRT#: 4

SEX: Female

DAY ON TEST: 516

DOSE: 6 MG/KG

DISP: Natural Death

HISTO: 0603490

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | Blood Vessel               | * Bone                    | * Brain                     |
| * Clitoral Gland         | * Esophagus                | * Eye                     | * Harderian Gland           |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             |
| * Ovary                  | * Pancreas                 | * Parathyroid Gland       | * Pituitary Gland           |
| * Salivary Glands        | * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        |
| * Thymus                 | * Trachea                  | * Urinary Bladder         | * Uterus                    |

**MISSING**

- \* Lymph Node, Mandibular

**AUTO PRECLUDES DIAG.**

- |                          |        |                 |
|--------------------------|--------|-----------------|
| * Lymph Node, Mesenteric | * Nose | * Thyroid Gland |
|--------------------------|--------|-----------------|

**OBSERVATIONS**

- |                  |         |                      |          |
|------------------|---------|----------------------|----------|
| * Adrenal Cortex |         | Leukemia Mononuclear |          |
| * Bone Marrow    |         | Leukemia Mononuclear |          |
| * Heart          |         | Cardiomyopathy       | Minimal  |
| * Kidney         |         | Mineralization       | Minimal  |
| * Liver          |         | Leukemia Mononuclear |          |
| * Lung           |         | Leukemia Mononuclear |          |
| * Spleen         | Capsule | Hemorrhage           | Moderate |
|                  |         | Leukemia Mononuclear |          |

[ Hemorrhage TGLs = 2-13+14 ]

[ Leukemia Mononuclear TGLs = 1-5 ]

**PRIMARY CAUSE OF DEATH**

- Spleen Leukemia Mononuclear



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 301

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603491

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Pancreas	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Carcinoma	
		Fibroadenoma	
	[ Carcinoma TGLs = 1-13 ]		
	[ Fibroadenoma TGLs = 2-14 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 301

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603491

ORGAN AND ACCOUNTABLE SITE STATUS

* Parathyroid Gland		Hyperplasia	Focal, Mild
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Moderate
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 302

TRT#: 6

SEX: Female

DAY ON TEST: 710

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603492

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney
* Lung	* Lymph Node, Mesenteric	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Adenoma	
[ Adenoma TGLs = 2-12 ]			
* Liver		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLs = 1-13 ]			
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
* Ovary		Cyst	
[ Cyst TGLs = 4-11 ]			
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 3-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 302

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 710

**DOSE:** 20 MG/KG

**DISP:** Natural Death

**HISTO:** 0603492

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Thymus

Atrophy

Moderate

\* Thyroid Gland

C Cell

Adenoma

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PRIMARY CAUSE OF DEATH

- Mammary Gland Fibroadenoma

CONTRIBUTORY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 303	TRT#: 6 DOSE: 20 MG/KG	SEX: Female DISP: Terminal Sacrifice	DAY ON TEST: 730 HISTO: 0603493
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**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- \* Adrenal Medulla
- \* Brain
- \* Intestine Large, Cecum
- \* Intestine Small, Ileum
- \* Pancreas
- \* Thymus
- \* Uterus
- Blood Vessel
- \* Clitoral Gland
- \* Intestine Large, Colon
- \* Intestine Small, Jejunum
- \* Parathyroid Gland
- \* Thyroid Gland
- \* Bone
- \* Esophagus
- \* Intestine Large, Rectum
- \* Lung
- \* Salivary Glands
- \* Trachea
- \* Bone Marrow
- \* Eye
- \* Intestine Small, Duodenum
- \* Ovary
- \* Stomach, Glandular
- \* Urinary Bladder

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- \* Adrenal Cortex
- \* Harderian Gland
- \* Heart
- \* Islets, Pancreatic
- \* Kidney
- \* Liver
- \* Pelvis
- \* Lymph Node, Mesenteric
- Angiectasis
- Inflammation
- Cardiomyopathy
- Carcinoma
- Carcinoma
- Inflammation
- Mineralization
- Nephropathy
- Pigmentation
- Clear Cell Focus
- Eosinophilic Focus
- Fatty Change
- Hepatodiaphragmatic Nodule
- Inflammation
- Mixed Cell Focus
- Infiltration Cellular
- Mild
- Minimal
- Minimal
- Minimal
- Minimal
- Minimal
- Minimal
- Focal, Mild
- Minimal
- Histiocyte, Minimal

[ Eosinophilic Focus TGLs = 4,5,7-16+17+19 ]  
 [ Fatty Change TGLs = 4-16 ]  
 [ Hepatodiaphragmatic Nodule TGLs = 3-15 ]  
 [ Mixed Cell Focus TGLs = 6-18 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 303

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603493

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland [ Fibroadenoma TGLs = 1-13 ]		Fibroadenoma	Multiple
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet Inflammation	Mild Minimal
* Pituitary Gland	Glands, Respirat Epith	Metaplasia Cyst	Respiratory, Minimal
* Skin	Pars Distalis	Hyperplasia Basal Cell Carcinoma	Minimal
* Spleen	[ Basal Cell Carcinoma TGLs = 2-14 ]	Congestion Hematopoietic Cell Proliferation Pigmentation	Mild Mild Moderate
* Stomach, Forestomach		Hyperplasia	Squamous, Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 304

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603494

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
		Hyperplasia	Minimal
	[ Fibroadenoma TGLs = 1,2-13+14 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 304

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603494

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

[ Adenoma TGLs = 3-8 ]

\* Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Moderate

\* Thymus

Atrophy

Moderate

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

---



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 305

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603495

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Moderate
* Bone Marrow		Hyperplasia	Mild
* Eye	Retina	Atrophy	Moderate
		Cataract	Moderate
	[ Cataract TGLs = 1-10 ]		
* Heart		Cardiomyopathy	Mild
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Mild
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 2,3-13+14 ]		
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 5-14 ]		
* Nose		Foreign Body	
		Inflammation	Minimal
* Pituitary Gland	Glands, Respirat Epith Pars Distalis	Metaplasia	Respiratory, Mild
		Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 305

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603495

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen		Congestion	Minimal
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 4-5 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 306

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603496

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Adenoma	Multiple
		Inflammation	Mild
	[ Adenoma TGLs = 2-13 ]		
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

---

**ANIMAL ID:** 306

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603496

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Spleen

Hematopoietic Cell Proliferation

Moderate

\* Thymus

Thymoma Benign

\* Uterus

Polyp Stromal

[ Polyp Stromal TGLs = 1-11 ]

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 307

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603497

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Hypertrophy	Mild
* Bone Marrow		Hyperplasia	Mild
* Eye	Retina	Atrophy	Moderate
		Cataract	Moderate
Note: Optic nerves on slide 9. [ Cataract TGLs = 1-10 ]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLs = 2-13 ]			

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 307

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603497

ORGAN AND ACCOUNTABLE SITE STATUS

Mesentery [ Necrosis TGLs = 3-14 ]	Fat	Necrosis	Moderate
* Nose	Olfactory Epi Glands, Respirat Epith	Accumulation, Hyaline Droplet Hyperplasia	Minimal Minimal
* Pituitary Gland [ Hyperplasia TGLs = 4-15 ]	Glands, Respirat Epith Pars Distalis	Metaplasia Hyperplasia	Respiratory, Mild Moderate
* Spleen	Capsule	Congestion Fibrosis Hematopoietic Cell Proliferation	Minimal Minimal Mild
* Thymus		Pigmentation Atrophy	Moderate Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 308

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603498

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hypertrophy	Mild
* Clitoral Gland		Cyst	
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Ovary		Cyst	
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Spleen		Congestion	Mild

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

---

**ANIMAL ID:** 308

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603498

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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	Hematopoietic Cell Proliferation	Mild
	Pigmentation	Mild
* Thymus	Atrophy	Moderate

---



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 309

TRT#: 6

SEX: Female

DAY ON TEST: 646

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603499

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Lipoma	
		Nephropathy	Mild
* Liver		Basophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Cyst	
		Fibroadenoma	
	[ Cyst TGLs = 1-13 ]		
	[ Fibroadenoma TGLs = 2-14 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 309

TRT#: 6

SEX: Female

DAY ON TEST: 646

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603499

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 3-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Carcinoma	

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Mammary Gland Fibroadenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 310

TRT#: 6

SEX: Female

DAY ON TEST: 705

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603500

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Mild
		Hypertrophy	Moderate
		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Leukemia Mononuclear	
		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
	[ Nephropathy TGLs = 3-5 ]		
* Liver		Fatty Change	Diffuse, Mild
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
	Oval Cell	Hyperplasia	Mild
		Leukemia Mononuclear	
	Hepatocyte	Necrosis	Mild
	[ Hepatodiaphragmatic Nodule TGLs = 5-14 ]		
	[ Leukemia Mononuclear TGLs = 2-6+7 ]		
* Lung		Leukemia Mononuclear	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 310

TRT#: 6

SEX: Female

DAY ON TEST: 705

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603500

ORGAN AND ACCOUNTABLE SITE STATUS

* Lymph Node, Mesenteric		Leukemia Mononuclear	
* Mammary Gland		Cyst	
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 4-8 ]		
* Spleen		Leukemia Mononuclear	
	[ Leukemia Mononuclear TGLs = 1-13 ]		
* Stomach, Forestomach		Hyperplasia	Squamous, Minimal
		Inflammation	Mild
		Ulcer	Mild
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Spleen Leukemia Mononuclear

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 311

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603501

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Degeneration	Cystic, Minimal
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas		Cyst	
* Pituitary Gland		Cyst	
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

---

**ANIMAL ID:** 311

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603501

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Thymus

Pigmentation

Mild

Atrophy

Moderate

---

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 312

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603502

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Degeneration	Cystic, Minimal
		Hypertrophy	Minimal
* Clitoral Gland		Adenoma	
		Inflammation	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
		Infarct	Minimal
	Pelvis	Inflammation	Moderate
		Mineralization	Mild
		Nephropathy	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 3-14 ]		
* Nose	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 312

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603502

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 2-8 ]	Glands, Respirat Epith Pars Distalis	Inflammation Metaplasia Adenoma	Minimal Respiratory, Mild
* Spleen	Capsule	Congestion Hematopoietic Cell Proliferation Hypertrophy Pigmentation	Minimal Mild Mesothelium, Minimal Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus [ Decidual Reaction TGLs = 4-15 ]		Decidual Reaction	Moderate



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 313

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 680

**DOSE:** 20 MG/KG

**DISP:** Natural Death

**HISTO:** 0603503

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Eye                       | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Trachea                 | * Urinary Bladder           | * Uterus                 |

**MISSING**

- \* Lymph Node, Mandibular

**AUTO PRECLUDES DIAG.**

- \* Thyroid Gland

**OBSERVATIONS**

- |                          |                                   |                               |                     |
|--------------------------|-----------------------------------|-------------------------------|---------------------|
| * Adrenal Cortex         |                                   | Vacuolization Cytoplasmic     | Minimal             |
| * Bone Marrow            |                                   | Hyperplasia                   | Moderate            |
| * Harderian Gland        |                                   | Inflammation                  | Minimal             |
| * Heart                  |                                   | Pigmentation                  | Minimal             |
| * Kidney                 | Pelvis, Transit Epithe            | Hyperplasia                   | Mild                |
|                          | Pelvis                            | Inflammation                  | Mild                |
|                          |                                   | Mineralization                | Minimal             |
| * Liver                  |                                   | Inflammation                  | Minimal             |
| * Lymph Node, Mesenteric |                                   | Infiltration Cellular         | Histiocyte, Minimal |
| * Mammary Gland          |                                   | Fibroadenoma                  | Multiple            |
|                          | [ Fibroadenoma TGLs = 1,3-13+14 ] |                               |                     |
| * Nose                   | Respirat Epith                    | Accumulation, Hyaline Droplet | Minimal             |
|                          | Glands, Respirat Epith            | Dilatation                    | Minimal             |
|                          | Glands, Respirat Epith            | Hyperplasia                   | Mild                |
|                          | Glands, Transit Epithe            | Hyperplasia                   | Minimal             |
|                          |                                   | Inflammation                  | Minimal             |
| * Pancreas               | Acinus                            | Atrophy                       | Mild                |
| * Pituitary Gland        | Pars Distalis                     | Adenoma                       |                     |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 313

TRT#: 6

SEX: Female

DAY ON TEST: 680

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603503

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 2-8 ]

\* Spleen

Capsule

Congestion

Mild

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Moderate

\* Thymus

Atrophy

Mild

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 314

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603504

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Cyst	
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Islets, Pancreatic		Adenoma	
* Kidney		Calculus Micro Observation Only	
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 314

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603504

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Adenoma TGLs = 2-8 ]	Glands, Respirat Epith Pars Distalis	Metaplasia Adenoma	Respiratory, Mild
* Spleen [ Congestion TGLs = 1-5 ] [ Fibrosis TGLs = 1-5 ]	Capsule	Congestion Fibrosis Hematopoietic Cell Proliferation Pigmentation	Moderate Minimal Mild Moderate
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell Follicular Cel	Adenoma Adenoma	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 315

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 659

**DOSE:** 20 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603505

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | Blood Vessel               | * Bone                    | * Bone Marrow               |
| * Brain                  | * Esophagus                | * Eye                     | * Harderian Gland           |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Pancreas               | * Parathyroid Gland        | * Salivary Glands         | * Skin                      |
| * Stomach, Glandular     | * Trachea                  | * Urinary Bladder         | * Uterus                    |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                              |                |                               |                  |
|------------------------------|----------------|-------------------------------|------------------|
| * Adrenal Cortex             |                | Angiectasis                   | Mild             |
|                              |                | Vacuolization Cytoplasmic     | Minimal          |
| * Clitoral Gland             |                | Adenoma                       |                  |
| [ Adenoma TGLs = 3-15 ]      |                |                               |                  |
| * Heart                      |                | Cardiomyopathy                | Minimal          |
| * Kidney                     |                | Accumulation, Hyaline Droplet | Minimal          |
|                              |                | Mineralization                | Minimal          |
|                              |                | Nephropathy                   | Minimal          |
|                              |                | Pigmentation                  | Minimal          |
| * Liver                      | Bile Duct      | Fibrosis                      | Minimal          |
|                              | Bile Duct      | Hyperplasia                   | Minimal          |
|                              |                | Inflammation                  | Minimal          |
| * Lymph Node, Mesenteric     |                | Infiltration Cellular         | Histiocyte, Mild |
| * Mammary Gland              |                | Carcinoma                     |                  |
|                              |                | Fibroadenoma                  |                  |
| [ Carcinoma TGLs = 2-14 ]    |                |                               |                  |
| [ Fibroadenoma TGLs = 1-13 ] |                |                               |                  |
| * Nose                       | Respirat Epith | Accumulation, Hyaline Droplet | Minimal          |
|                              | Olfactory Epi  | Accumulation, Hyaline Droplet | Minimal          |
| * Ovary                      |                | Cyst                          |                  |
| [ Cyst TGLs = 4-16 ]         |                |                               |                  |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 315

TRT#: 6

SEX: Female

DAY ON TEST: 659

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603505

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 5-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Stomach, Forestomach		Inflammation	Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	

PRIMARY CAUSE OF DEATH - Mammary Gland Carcinoma

CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 316

TRT#: 6

SEX: Female

DAY ON TEST: 680

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603506

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Moderate
* Adrenal Medulla		Pheochromocytoma Malignant	
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
* Liver		Basophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
		Hyperplasia	Minimal
	[ Fibroadenoma TGLs = 1-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 4-15 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Degeneration	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Ovary		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 316

TRT#: 6

SEX: Female

DAY ON TEST: 680

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603506

ORGAN AND ACCOUNTABLE SITE STATUS

[ Cyst TGLs = 3-14 ]

\* Pancreas

Acinus

Atrophy

Minimal

\* Pituitary Gland

Pars Distalis

Adenoma

[ Adenoma TGLs = 2-8 ]

\* Spleen

Capsule

Congestion

Minimal

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Mild

Pigmentation

Moderate

\* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 317

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603507

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Cyst	
* Eye	Retina	Atrophy	Moderate
		Cataract	Moderate
	Note: Optic nerves missing. [ Cataract TGLs = 1-10 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
	[ Clear Cell Focus TGLs = 2-13 ]	Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Transit Epithe	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 317

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603507

ORGAN AND ACCOUNTABLE SITE STATUS

	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas	Acinus	Atrophy	Minimal
		Cyst	
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
	[ Hyperplasia TGLs = 3-8 ]		
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 318

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603508

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Ovary	* Pancreas	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 5-16 ]		
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,3,4-13+14+15 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 318

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603508

ORGAN AND ACCOUNTABLE SITE STATUS

* Parathyroid Gland	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Diffuse, Minimal
[ Adenoma TGLs = 2-8 ]		Adenoma	
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 319

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603509

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Degeneration	Cystic, Minimal
		Hypertrophy	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Cyst	
* Spleen		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

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**ANIMAL ID:** 319

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603509

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Thymus

Pigmentation

Moderate

Atrophy

Mild

---

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 320

TRT#: 6

SEX: Female

DAY ON TEST: 630

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603510

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	Peripheral Nerve	* Salivary Glands
* Skin	Spinal Cord	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

---

**ANIMAL ID:** 320

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 630

**DOSE:** 20 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603510

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

\* Thymus

Atrophy

Mild

\* Thyroid GI

Note: One thyroid missing.

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PRIMARY CAUSE OF DEATH

- UNCERTAIN

---



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 321

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603511

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Moderate
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Adenoma	
		Hyperplasia	Mild
		Inflammation	Moderate
	[ Adenoma TGLs = 2-14 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Infarct	Mild
	Pelvis	Inflammation	Minimal
		Mineralization	Mild
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 321

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603511

**ORGAN AND ACCOUNTABLE SITE STATUS**

Inflammation Minimal

Mixed Cell Focus

[ Eosinophilic Focus TGLs = 5-16 ]

[ Hepatodiaphragmatic Nodule TGLs = 4-15 ]

\* Lymph Node, Mesenteric

\* Mammary Gland

[ Fibroadenoma TGLs = 1-13 ]

\* Nose

Olfactory Epi

Respirat Epith

Glands, Respirat Epith

Accumulation, Hyaline Droplet

Hyperplasia

Metaplasia

Cyst

Mild

Minimal

Respiratory, Minimal

\* Ovary

[ Cyst TGLs = 3-11 ]

\* Pituitary Gland

Pars Distalis

Hyperplasia

Marked

\* Spleen

Congestion

Minimal

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

\* Thymus

Atrophy

Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 322

TRT#: 6

SEX: Female

DAY ON TEST: 611

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603512

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Carcinoma	
	[ Carcinoma TGLs = 1-13 ]		
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver	Centrilobular	Degeneration	Mild
		Eosinophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
		Hepatodiaphragmatic Nodule	
	[ Hepatodiaphragmatic Nodule TGLs = 2-14 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen		Hematopoietic Cell Proliferation	Moderate
* Thymus		Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

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**ANIMAL ID:** 322

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 611

**DOSE:** 20 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603512

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Uterus

Inflammation

Mild

Note: There was inflammation of the wall and the lumen was dilated and contained an eosinophilic material.

[ Inflammation TGLs = 3-15 ]

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PRIMARY CAUSE OF DEATH

- Clitoral Gland Carcinoma

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 323

TRT#: 6

SEX: Female

DAY ON TEST: 714

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603513

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Degeneration	Cystic, Minimal
		Hyperplasia	Minimal
		Hypertrophy	Minimal
* Heart		Cardiomyopathy	Mild
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
	Pelvis	Inflammation	Mild
		Mineralization	Minimal
		Nephropathy	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 323

TRT#: 6

SEX: Female

DAY ON TEST: 714

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603513

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 1-8 ]

\* Spleen

Capsule

Congestion

Minimal

Fibrosis

Minimal

Hematopoietic Cell Proliferation

Mild

Pigmentation

Moderate

\* Uterus

Polyp Stromal

[ Polyp Stromal TGLs = 2-13 ]

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 324

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603514

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

---

**ANIMAL ID:** 324

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603514

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland		Cyst	
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 325

TRT#: 6

SEX: Female

DAY ON TEST: 659

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603515

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland	* Salivary Glands
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Moderate
* Bone Marrow		Hyperplasia	Moderate
* Clitoral GI			
Note: One clitoral gland missing.			
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Fatty Change	Diffuse, Moderate
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
* Lung		Sarcoma	Metastatic (Skin)
	[ Sarcoma TGLs = 3,4,5,6-3+4+15+16 ]		
	Lymph Node		
	[ Sarcoma TGLs = 7-17 ]	Sarcoma	Metastatic (Skin)
* Mammary Gland			
	[ Fibroadenoma TGLs = 1-13 ]	Fibroadenoma	
* Nose			
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas	Acinus	Atrophy	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 325

TRT#: 6

SEX: Female

DAY ON TEST: 659

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603515

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
* Skin		Sarcoma	
	[ Sarcoma TGLs = 2-14+18+19 ]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Minimal
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Moderate
		Ulcer	Moderate
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - Skin Sarcoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 326

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603516

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Clitoral Gland		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Pigmentation	Minimal
* Liver		Angiectasis	Mild
		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Angiectasis TGLs = 5-17 ]		
	[ Clear Cell Focus TGLs = 3-15 ]		
	[ Eosinophilic Focus TGLs = 4-16 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
Mesentery	Fat	Necrosis	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 326

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603516

ORGAN AND ACCOUNTABLE SITE STATUS

[ Necrosis TGLs = 6-18 ]

* Nose	Olfactory Epi Glands, Respirat Epith	Accumulation, Hyaline Droplet Metaplasia	Minimal Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Skin		Lipoma	

Note: TGL 2 had features of a lipoma or adenolipoma of the mammary gland which is not an option.

[ Lipoma TGLs = 2-14 ]

* Spleen		Congestion Hematopoietic Cell Proliferation Pigmentation	Mild Minimal Minimal
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 327

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603517

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | Blood Vessel               | * Bone                    | * Bone Marrow               |
| * Brain                  | * Esophagus                | * Eye                     | * Harderian Gland           |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Ovary                  | * Pancreas                 | * Parathyroid Gland       | * Salivary Glands           |
| * Stomach, Forestomach   | * Stomach, Glandular       | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |   |            |                           |                     |
|---|------------|---------------------------|---------------------|
| * Adrenal Cortex                        |            | Angiectasis               | Minimal             |
|   |            | Hyperplasia               | Minimal             |
|   |            | Vacuolization Cytoplasmic | Minimal             |
| * Clitoral Gland                        |            | Cyst                      |                     |
|   |            | Hyperplasia               | Mild                |
|   |            | Inflammation              | Minimal             |
| * Heart                                 |            | Cardiomyopathy            | Minimal             |
| * Kidney                                |            | Mineralization            | Minimal             |
|   |            | Nephropathy               | Minimal             |
|   |            | Pigmentation              | Minimal             |
| * Liver                                 |            | Angiectasis               | Minimal             |
|   |            | Clear Cell Focus          |                     |
|   |            | Eosinophilic Focus        |                     |
|   | Bile Duct  | Fibrosis                  | Minimal             |
|   | Bile Duct  | Hyperplasia               | Minimal             |
|   | Hepatocyte | Hypertrophy               | Minimal             |
|   |            | Inflammation              | Minimal             |
|   |            | Mixed Cell Focus          |                     |
| [ Eosinophilic Focus TGLs = 5,6-14+15 ] |            |                           |                     |
| * Lymph Node, Mesenteric                |            | Infiltration Cellular     | Histiocyte, Minimal |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 327

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603517

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland [ Fibroadenoma TGLs = 3,4-14+15 ]		Fibroadenoma	Multiple
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland [ Adenoma TGLs = 2-8 ]	Pars Distalis	Adenoma	
* Skin [ Fibroma TGLs = 1-13 ]		Fibroma	
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 328

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603518

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Carcinoma	
		Inflammation	Mild
	[ Carcinoma TGLs = 4-16 ]		
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
* Lung	Alveolar Epith	Hyperplasia	Mild
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2,3-13+14+15 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 328

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603518

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 5-17 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 329

TRT#: 6

SEX: Female

DAY ON TEST: 697

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603519

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

AUTO PRECLUDES DIAG.

\* Thyroid Gland

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Spleen		Pigmentation	Moderate
* Thymus		Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

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**ANIMAL ID:** 329

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 697

**DOSE:** 20 MG/KG

**DISP:** Natural Death

**HISTO:** 0603519

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 330

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603520

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Clitoral Gland		Cyst	
		Hyperplasia	Mild
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal
* Pituitary Gland	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Pars Distalis	Adenoma	

[ Adenoma TGLs = 1-8 ]

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 330

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603520

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Spleen

Congestion  
Hematopoietic Cell Proliferation  
Pigmentation

Minimal  
Mild  
Moderate

\* Thymus

Atrophy

Mild

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 331

TRT#: 6

SEX: Female

DAY ON TEST: 709

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603521

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
	Hepatocyte	Hypertrophy	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Mild
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 331

TRT#: 6

SEX: Female

DAY ON TEST: 709

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603521

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Adenoma TGLs = 2-8 ]

\* Spleen

Hematopoietic Cell Proliferation

Mild

Pigmentation

Mild

\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 332

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603522

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Adenoma	
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Moderate

[ Hyperplasia TGLs = 1-8 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 332

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603522

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Adenoma	



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 333

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603523

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
* Clitoral Gland		Adenoma	
		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
	[ Clear Cell Focus TGLs = 3-15 ]		
	[ Eosinophilic Focus TGLs = 3-15 ]		
Lymph Node	Mediastinal	Ectasia	Mild
	[ Ectasia TGLs = 4-16 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Moderate
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Transit Epithe	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 333

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603523

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Glands, Respirat Epith	Metaplasia Cyst	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Infiltration Cellular Adenoma Cyst	Mononuclear CI, Mild
[ Adenoma TGLs = 5-8 ]			
* Spleen	Capsule	Hematopoietic Cell Proliferation Hypertrophy Pigmentation	Mild Mesothelium, Minimal Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	Multiple
[ Polyp Stromal TGLs = 1,2-13+14 ]			

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 334

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603524

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Degeneration	Cystic, Minimal
		Hyperplasia	Minimal
		Hypertrophy	Minimal
* Clitoral Gland		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	[ Clear Cell Focus TGLs = 2-6+7+14 ]		
	[ Eosinophilic Focus TGLs = 2-6+14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Mild
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 334

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603524

ORGAN AND ACCOUNTABLE SITE STATUS

* Pancreas	Acinus	Atrophy Cyst	Mild
* Pituitary Gland	Pars Distalis	Infiltration Cellular Adenoma Cyst	Mononuclear CI, Minimal
[ Adenoma TGLs = 3-13 ]			
* Spleen		Congestion Hematopoietic Cell Proliferation Pigmentation	Minimal Mild Moderate
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Sarcoma Stromal	
[ Sarcoma Stromal TGLs = 1-13 ]			

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 335

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603525

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hypertrophy	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
		Mixed Cell Focus	
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 2-14 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		
* Spleen		Congestion	Mild

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 335

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603525

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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	Hematopoietic Cell Proliferation	Mild
	Pigmentation	Mild
* Thymus	Atrophy	Moderate

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 336

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603526

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Brain	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Mammary Gland	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone		Hyperostosis	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 336

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603526

ORGAN AND ACCOUNTABLE SITE STATUS

	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	Follicular Cel	Adenoma	



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 337

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603527

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
	Pelvis	Inflammation	Mild
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

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**ANIMAL ID:** 337

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603527

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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* Skin		Liposarcoma	
	[ Liposarcoma TGLs = 2-14 ]		
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thyroid Gland	C Cell	Adenoma	

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 338

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603528

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
	[ Hyperplasia TGLs = 1-8 ]		
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

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ANIMAL ID: 338

TRT#: 6

SEX: Female

DAY ON TEST: 728

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603528

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ORGAN AND ACCOUNTABLE SITE STATUS

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\* Thymus

Pigmentation  
Atrophy

Moderate  
Mild

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 339

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603529

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Minimal
* Kidney	Papilla	Fibrosis	Minimal
	Pelvis, Transit Epithe	Hyperplasia	Moderate
		Infarct	Mild
	Pelvis	Inflammation	Moderate
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 2-14 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 339

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603529

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 340

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603530

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
* Clitoral Gland		Cyst	
[ Cyst TGLs = 1-12 ]			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
		Eosinophilic Focus	
		Inflammation	Minimal
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
[ Necrosis TGLs = 3-14 ]			
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 340

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603530

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Glands, Respirat Epith Pars Distalis	Metaplasia Adenoma Cyst	Respiratory, Mild
[ Adenoma TGLs = 2-13 ]			
* Spleen		Congestion Hematopoietic Cell Proliferation Pigmentation	Mild Mild Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 341

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603531

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Cyst	
		Hyperplasia	Moderate
		Inflammation	Mild
	[ Cyst TGLs = 2-14 ]		
	[ Hyperplasia TGLs = 2-14 ]		
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 3-15 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 341

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603531

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland		Infiltration Cellular	Mononuclear CI, Mild
		Cyst	
	Pars Distalis	Hyperplasia	Moderate
	[ Hyperplasia TGLs = 4-8 ]		
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	
	[ Polyp Stromal TGLs = 1-13 ]		

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 342

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603532

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Ovary	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
		Infarct	Mild
	Pelvis	Inflammation	Mild
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
		Fatty Change	Focal, Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Hepatodiaphragmatic Nodule		
* Lung	TGLs = 1-13 ]		
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 342

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603532

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Pancreas	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Parathyroid Gland		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Diffuse, Minimal
[ Adenoma TGLs = 2-8 ]		Adenoma	
* Spleen		Congestion	Mild
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 343

TRT#: 6

SEX: Female

DAY ON TEST: 613

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603533

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Bone Marrow	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Adrenal Medulla		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Dilatation	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas	Acinus	Atrophy	Minimal
* Spleen		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH

- UNCERTAIN

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 344

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603534

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Clitoral Gland		Hyperplasia	Mild
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Cyst	
* Spleen		Congestion	Minimal

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011  
**Time Report Requested:** 08:08:27  
**First Dose M/F:** 10/20/04 / 10/21/04  
**Lab:** BAT

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**ANIMAL ID:** 344

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 20 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603534

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Hematopoietic Cell Proliferation

Mild

Pigmentation

Moderate

Atrophy

Mild

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 345

TRT#: 6

SEX: Female

DAY ON TEST: 604

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603535

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
* Brain		Hemorrhage	Moderate
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Spleen		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate

\* PROTOCOL REQUIRED TISSUE



**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 345

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 604

**DOSE:** 20 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603535

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Atrophy

Mild

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PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 346

TRT#: 6

SEX: Female

DAY ON TEST: 717

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603536

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Clitoral Gland		Adenoma	
		Inflammation	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Fibrosis	Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 2-14 ]		
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 346

TRT#: 6

SEX: Female

DAY ON TEST: 717

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603536

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	
[ Adenoma TGLs = 3-8 ]			
* Spleen		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 347

TRT#: 6

SEX: Female

DAY ON TEST: 613

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603537

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Ovary	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**AUTO PRECLUDES DIAG.**

\* Thyroid Gland

**OBSERVATIONS**

* Adrenal Cortex		Adenoma	
		Hypertrophy	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Mammary Gland		Cyst	
[ Cyst TGLs = 1-13 ]			
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 347

TRT#: 6

SEX: Female

DAY ON TEST: 613

DOSE: 20 MG/KG

DISP: Natural Death

HISTO: 0603537

**ORGAN AND ACCOUNTABLE SITE STATUS**

[ Adenoma TGLs = 2-8 ]

\* Spleen

Hematopoietic Cell Proliferation

Minimal

Pigmentation

Mild

\* Thymus

Atrophy

Moderate

PRIMARY CAUSE OF DEATH

- Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 348

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603538

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
		Cyst	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 348

TRT#: 6

SEX: Female

DAY ON TEST: 729

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603538

ORGAN AND ACCOUNTABLE SITE STATUS

[ Adenoma TGLs = 1-8 ]

\* Spleen

Congestion  
Hematopoietic Cell Proliferation  
Hypertrophy  
Pigmentation

Minimal  
Mild  
Mesothelium, Minimal  
Moderate

\* Thymus

Atrophy

Mild

\* Thyroid Gland

C Cell

Hyperplasia

Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 349

TRT#: 6

SEX: Female

DAY ON TEST: 673

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603539

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Bone Marrow
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
		Hypertrophy	Moderate
		Vacuolization Cytoplasmic	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
		Infarct	Moderate
	Pelvis	Inflammation	Mild
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
	[ Infarct TGLs = 3-5+15 ]		
* Liver		Fatty Change	Diffuse, Moderate
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	Multiple
	[ Fibroadenoma TGLs = 1,2,4-13+14+16 ]		
* Nose	Olfactory Epi	Accumulation, Hyaline Droplet	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 349

TRT#: 6

SEX: Female

DAY ON TEST: 673

DOSE: 20 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603539

ORGAN AND ACCOUNTABLE SITE STATUS

	Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 5-8 ]		
* Spleen	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Marked
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Mild
* Stomach, Glandular		Ulcer	Minimal
		Inflammation	Minimal
		Ulcer	Moderate
	[ Ulcer TGLs = 6-6 ]		
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

CONTRIBUTORY CAUSE OF DEATH - Mammary Gland Fibroadenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 350

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603540

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Mild
Note: One clitoral gland missing.			
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Oval Cell	Hyperplasia	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
[ Fibroadenoma TGLs = 1-13 ]			
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Accumulation, Hyaline Droplet	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 350

TRT#: 6

SEX: Female

DAY ON TEST: 730

DOSE: 20 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603540

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland	Glands, Respirat Epith	Metaplasia Cyst	Respiratory, Mild
* Skin	Pars Distalis	Hyperplasia Schwannoma Malignant	Mild
[ Schwannoma Malignant TGLs = 2-14 ]			
* Spleen	Capsule	Hematopoietic Cell Proliferation Hypertrophy Pigmentation	Mild Mesothelium, Minimal Mild
* Thymus		Atrophy	Mild
* Uterus		Adenoma	
[ Adenoma TGLs = 3-13 ]			

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 351

TRT#: 8

SEX: Female

DAY ON TEST: 714

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603541

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
		Myelofibrosis	Moderate
* Clitoral Gland		Adenoma	
[ Adenoma TGLs = 3-13 ]			
* Heart		Cardiomyopathy	Minimal
		Thrombosis	Moderate
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Mild
* Liver	Centrilobular	Degeneration	Mild
	Bile Duct	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
	Bile Duct	Hyperplasia	Minimal
	Oval Cell	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Moderate
[ Degeneration TGLs = 1-6+7 ]			
[ Hypertrophy TGLs = 1-6+7 ]			
* Nose	Olfactory Epi	Degeneration	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 351

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 714

**DOSE:** 60 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603541

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Moderate
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 4-8 ]		
* Spleen		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Minimal
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH - Heart Thrombosis

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 352

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603542

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Degeneration	Cystic, Mild
		Hyperplasia	Mild
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Mild
		Mixed Cell Focus	
	Hepatocyte	Necrosis	Minimal
[ Mixed Cell Focus	TGLs = 3-6+7+14 ]		
* Lung	Alveolar Epith	Hyperplasia	Mild
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 352

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603542

ORGAN AND ACCOUNTABLE SITE STATUS

* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Pancreas		Cyst	
		Infiltration Cellular	Mononuclear CI, Minimal
* Parathyroid Gland		Hyperplasia	Diffuse, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
	[ Fibrosis TGLs = 2-5 ]		
* Thymus		Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 353

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603543

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Adenoma	
		Inflammation	Mild
	[ Adenoma TGLs = 2-12 ]		
* Eye	Retina	Atrophy	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatocellular Carcinoma	Multiple
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 8-17 ]		

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 353

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603543

ORGAN AND ACCOUNTABLE SITE STATUS

	[ Hepatocellular Carcinoma TGLs = 6,7-15+16 ]		
	[ Mixed Cell Focus TGLs = 9-18 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 5-14 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Moderate
	Glands, Respirat Epith	Hyperplasia	Moderate
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
* Ovary		Granulosa Cell Tumor Malignant	
	[ Granulosa Cell Tumor Malignant TGLs = 3-11 ]		
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
	[ Hyperplasia TGLs = 10-8 ]		
* Spleen	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
	[ Fibrosis TGLs = 4-5 ]		
* Thymus		Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 354

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603544

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Mild
		Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Angiectasis	Mild
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
		Mixed Cell Focus	
	Hepatocyte	Necrosis	Minimal
	[ Clear Cell Focus TGLs = 3-6+7+15+16 ]		
* Lung		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 354

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603544

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Moderate
	Glands, Respirat Epith	Hyperplasia	Moderate
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
	[ Fibrosis TGLs = 2-5 ]		
* Thymus		Atrophy	Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
		Polyp Stromal	
	[ Hyperplasia TGLs = 4-11+14 ]		
	[ Polyp Stromal TGLs = 4-14 ]		



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 355

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603545

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Parathyroid Gland		Hyperplasia	Diffuse, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
	[ Hyperplasia TGLs = 1-8 ]		
* Spleen	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Moderate
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
		Inflammation	Moderate
		Ulcer	Moderate
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 356

TRT#: 8

SEX: Female

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603546

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary
* Pancreas	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Trachea	* Urinary Bladder	* Uterus

MISSING

* Lymph Node, Mandibular	* Thymus
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OBSERVATIONS

* Adrenal Cortex		Leukemia Mononuclear	
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
Ear		Neural Crest Tumor	
	[ Neural Crest Tumor TGLs = 1-13 ]		
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Minimal
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver	Bile Duct	Fibrosis	Minimal
		Inflammation	Minimal
		Leukemia Mononuclear	
* Lung		Neural Crest Tumor	Metastatic (Ear)
	[ Neural Crest Tumor TGLs = 5-3+4 ]		
Lymph Node	Mediastinal	Ectasia	Moderate
	Mediastinal	Neural Crest Tumor	Metastatic (Ear)
	[ Ectasia TGLs = 4-16 ]		
	[ Neural Crest Tumor TGLs = 4-16 ]		
* Mammary Gland		Fibroadenoma	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 356

TRT#: 8

SEX: Female

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603546

ORGAN AND ACCOUNTABLE SITE STATUS

	[ Fibroadenoma TGLs = 3-15 ]		
* Nose	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Cyst	
	[ Cyst TGLs = 6-8 ]		
* Spleen		Leukemia Mononuclear Pigmentation	Minimal
	[ Leukemia Mononuclear TGLs = 2-14 ]		
* Stomach, Glandular		Neural Crest Tumor	Metastatic (Ear)
	[ Neural Crest Tumor TGLs = 7-17 ]		
* Thyroid Gland	C Cell	Hyperplasia	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 357

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603547

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	Lacrimal Gland
* Lymph Node, Mesenteric	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Mild
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Angiectasis	Mild
		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
	[ Clear Cell Focus TGLs = 2,3-6+7 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
		Foreign Body	

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 357

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603547

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Olfactory Epi	Metaplasia	Squamous, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
	[ Hyperplasia TGLs = 5-8 ]		
* Spleen	Lymph Follic	Atrophy	Moderate
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 1-5 ]		
* Stomach, Forestomach		Inflammation	Mild
		Ulcer	Mild
* Thymus		Atrophy	Mild
* Uterus	Cervix	Cyst	
	Note: The cysts were lined by squamous epithelium.		
	[ Cyst TGLs = 4-13 ]		

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 358

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603548

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Parathyroid Gland
* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Hyperplasia	Minimal
		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Mild
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 4-6+7+15 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 2-14 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 358

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603548

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Nerve	Atrophy	Minimal
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Moderate
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 5-8 ]		
* Skin		Keratoacanthoma	
	[ Keratoacanthoma TGLs = 1-13 ]		
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
	[ Fibrosis TGLs = 3-5 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 359

TRT#: 8

SEX: Female

DAY ON TEST: 694

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603549

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hypertrophy	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Mild
	[ Nephropathy TGLs = 2-5 ]		
* Liver	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Mild
		Inflammation	Mild
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 359

TRT#: 8

SEX: Female

DAY ON TEST: 694

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603549

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Olfactory Epi	Hyperplasia Inflammation	Basal Cell, Mild Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		
* Spleen	Lymph Follic	Atrophy Congestion	Moderate Mild
	Capsule	Fibrosis Hematopoietic Cell Proliferation Pigmentation	Mild Minimal Moderate
	[ Fibrosis TGLs = 1-5 ]		
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Minimal
* Uterus		Polyp Stromal	

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 360

TRT#: 8

SEX: Female

DAY ON TEST: 685

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603550

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Mammary Gland	* Ovary	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone		Osteosarcoma	
	[ Osteosarcoma TGLs = 1-13 ]		
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Mild
	Hepatocyte	Necrosis	Moderate
	[ Necrosis TGLs = 2-14 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Transit Epithe	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 360

TRT#: 8

SEX: Female

DAY ON TEST: 685

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603550

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Olfactory Epi	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas	Acinus	Atrophy	Minimal
* Spleen	Lymph Follic	Atrophy	Marked
		Congestion	Mild
	Capsule	Fibrosis	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - Bone Osteosarcoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 361

TRT#: 8

SEX: Female

DAY ON TEST: 682

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603551

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Adenoma	
		Angiectasis	Mild
		Hypertrophy	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Hyperplasia	Minimal
* Kidney	Pelvis	Dilatation	Mild
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
	[ Dilatation TGLs = 1-5 ]		
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Moderate

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 361

TRT#: 8

SEX: Female

DAY ON TEST: 682

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603551

**ORGAN AND ACCOUNTABLE SITE STATUS**

Glands, Respirat Epith	Dilatation	Minimal
Glands, Olfactory Epi	Dilatation	Mild
Respirat Epith	Hyperplasia	Minimal
Glands, Respirat Epith	Hyperplasia	Mild
Glands, Olfactory Epi	Hyperplasia	Minimal
Glands, Transit Epithe	Hyperplasia	Minimal
Olfactory Epi	Hyperplasia	Basal Cell, Minimal
	Inflammation	Mild
Glands, Respirat Epith	Metaplasia	Respiratory, Mild
Olfactory Epi	Metaplasia	Squamous, Minimal
Olfactory Epi	Metaplasia	Respiratory, Minimal
Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas	Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Adenoma	
* Spleen	Atrophy	Moderate
	Fibrosis	Minimal
	Hematopoietic Cell Proliferation	Minimal
	Pigmentation	Moderate
* Thymus	Atrophy	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 362

TRT#: 8

SEX: Female

DAY ON TEST: 681

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603552

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder		

MISSING

\* Lymph Node, Mandibular

AUTO PRECLUDES DIAG.

\* Thyroid Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Esophagus			
Note: There was no material observed in the lumen of the esophagus.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
		Degeneration	Cystic, Mild
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 1-13 ]		
	[ Mixed Cell Focus TGLs = 1-13 ]		
* Lung		Congestion	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 362

TRT#: 8

SEX: Female

DAY ON TEST: 681

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603552

ORGAN AND ACCOUNTABLE SITE STATUS

[ Congestion TGLs = 5-3+4 ]

* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Necrosis	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-14 ]		
* Spleen	Lymph Follic	Atrophy	Moderate
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Uterus		Hemorrhage	Moderate

Note: The lumen was filled with what appeared to be degenerate erythrocytes and other eosinophilic material.

[ Hemorrhage TGLs = 3-15 ]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 363

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603553

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
* Adrenal Medulla		Hyperplasia	Moderate
		Pheochromocytoma Benign	
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 1-7+13 ]		
	[ Mixed Cell Focus TGLs = 1-6+7+13 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 363

TRT#: 8

SEX: Female

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603553

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
* Spleen	Lymph Follic	Atrophy	Mild
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 364

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603554

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Clitoral Gland         |
| * Esophagus                | * Eye                     | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Stomach, Forestomach      | * Stomach, Glandular     |
| * Trachea                  | * Urinary Bladder         | * Uterus                    |                          |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                          |                        |                             |                     |
|--------------------------|------------------------|-----------------------------|---------------------|
| * Adrenal Cortex         |                        | Angiectasis                 | Moderate            |
| * Bone Marrow            |                        | Hyperplasia                 | Mild                |
| * Brain                  |                        | Oligodendroglioma Malignant |                     |
| * Heart                  |                        | Cardiomyopathy              | Minimal             |
| * Kidney                 |                        | Mineralization              | Minimal             |
|                          |                        | Nephropathy                 | Minimal             |
|                          |                        | Pigmentation                | Mild                |
| * Liver                  |                        | Clear Cell Focus            |                     |
|                          |                        | Degeneration                | Cystic, Minimal     |
|                          |                        | Eosinophilic Focus          |                     |
|                          | Bile Duct              | Fibrosis                    | Minimal             |
|                          | Bile Duct              | Hyperplasia                 | Minimal             |
|                          |                        | Inflammation                | Minimal             |
| * Lung                   | Alveolus               | Infiltration Cellular       | Histiocyte, Minimal |
| * Lymph Node, Mesenteric |                        | Infiltration Cellular       | Histiocyte, Minimal |
| * Nose                   | Olfactory Epi          | Degeneration                | Mild                |
|                          | Glands, Respirat Epith | Dilatation                  | Minimal             |
|                          | Glands, Olfactory Epi  | Dilatation                  | Moderate            |
|                          | Transit Epithe         | Hyperplasia                 | Minimal             |
|                          | Glands, Respirat Epith | Hyperplasia                 | Minimal             |
|                          | Glands, Olfactory Epi  | Hyperplasia                 | Mild                |

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

**ANIMAL ID:** 364

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603554

**ORGAN AND ACCOUNTABLE SITE STATUS**

		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Metaplasia	Mild
* Pancreas	Acinus	Atrophy	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Skin		Squamous Cell Papilloma	
	[ Squamous Cell Papilloma TGLs = 1-13 ]		
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Hyperplasia	Minimal

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 365

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603555

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 1-6+7+13 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 365

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603555

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Transit Epithe	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Moderate
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Mild
	Glands, Olfactory Epi	Necrosis	Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Moderate
	[ Fibrosis TGLs = 2-5 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 366

TRT#: 8

SEX: Female

DAY ON TEST: 533

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603556

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**AUTO PRECLUDES DIAG.**

\* Thyroid Gland

**OBSERVATIONS**

* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Cyst	
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
* Lung		Congestion	Moderate
	[ Congestion TGLs = 1-3+4 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 366

TRT#: 8

SEX: Female

DAY ON TEST: 533

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603556

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Spleen	Lymph Follic	Atrophy	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Moderate
* Trachea		Inflammation	Mild

PRIMARY CAUSE OF DEATH

- UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 367

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603557

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Brain                  |
| * Clitoral Gland           | * Esophagus               | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Lymph Node, Mesenteric |
| * Ovary                    | * Pancreas                | * Salivary Glands           | * Skin                   |
| * Stomach, Forestomach     | * Stomach, Glandular      | * Thyroid Gland             | * Trachea                |
| * Urinary Bladder          |                           |                             |                          |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                  |   |                    |          |
|------------------|---|--------------------|----------|
| * Adrenal Cortex |   | Angiectasis        | Mild     |
|                  |   | Hyperplasia        | Minimal  |
|                  |   | Hypertrophy        | Minimal  |
| * Bone Marrow    |   | Hyperplasia        | Moderate |
| * Eye            | Cornea                                      | Degeneration       | Mild     |
|                  | [ Degeneration TGLs = 2-10 ]                |                    |          |
| * Heart          |   | Cardiomyopathy     | Minimal  |
| * Kidney         | Pelvis, Transit Epithe                      | Hyperplasia        | Minimal  |
|                  | Pelvis                                      | Inflammation       | Mild     |
|                  |   | Mineralization     | Minimal  |
|                  |   | Nephropathy        | Minimal  |
|                  |   | Pigmentation       | Mild     |
| * Liver          |   | Clear Cell Focus   |          |
|                  |   | Eosinophilic Focus |          |
|                  | Bile Duct                                   | Fibrosis           | Minimal  |
|                  | Bile Duct                                   | Hyperplasia        | Mild     |
|                  |   | Inflammation       | Minimal  |
|                  |   | Mixed Cell Focus   |          |
|                  | [ Clear Cell Focus TGLs = 3-6+7+14 ]        |                    |          |
|                  | [ Eosinophilic Focus TGLs = 3,4-6+7+14+15 ] |                    |          |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 367

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603557

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Glands, Transit Epithe	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
* Parathyroid Gland		Hyperplasia	Diffuse, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Uterus	Endometrium	Hyperplasia	Cystic, Moderate
	[ Hyperplasia TGLs = 5-16 ]		

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 368

TRT#: 8

SEX: Female

DAY ON TEST: 381

DOSE: 60 MG/KG

DISP: Dosing Accident

HISTO: 0603558

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Urinary Bladder	* Uterus		

**MISSING**

* Lymph Node, Mandibular	* Parathyroid Gland
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**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
* Bone Marrow		Hyperplasia	Moderate
* Harderian Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Glands, Olfactory Epi	Dilatation	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 368

TRT#: 8

SEX: Female

DAY ON TEST: 381

DOSE: 60 MG/KG

DISP: Dosing Accident

HISTO: 0603558

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen	Glands, Olfactory Epi Lymph Follic	Necrosis Atrophy Hematopoietic Cell Proliferation Pigmentation	Moderate Mild Minimal Moderate
* Thymus	[ Atrophy TGLs = 1-3 ]	Atrophy	Moderate
* Trachea	[ Perforation TGLs = 2-13 ]	Perforation	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 369

TRT#: 8

SEX: Female

DAY ON TEST: 471

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603559

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

* Lymph Node, Mandibular	* Thymus
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**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Mild
* Kidney		Accumulation, Hyaline Droplet	Minimal
		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
		Foreign Body	
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 369

TRT#: 8

SEX: Female

DAY ON TEST: 471

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603559

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Inflammation	Minimal
	Glands, Olfactory Epi	Metaplasia	Respiratory, Mild
* Pancreas		Metaplasia	Minimal
* Pituitary Gland	Pars Distalis	Infiltration Cellular	Mononuclear CI, Mild
[ Adenoma TGLs = 1-8 ]		Adenoma	
* Spleen		Congestion	Minimal
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 370

TRT#: 8

SEX: Female

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603560

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hypertrophy	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Mixed Cell Focus	
	[ Clear Cell Focus TGLs = 4-14 ]		
	[ Eosinophilic Focus TGLs = 4-7+14 ]		
	[ Mixed Cell Focus TGLs = 4-6 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Olfactory Epi	Dilatation	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 370

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 728

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603560

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Transit Epithe	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pancreas		Cyst	
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 3-8 ]		
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 2-5 ]		
* Thymus		Atrophy	Mild
* Uterus		Polyp Stromal	
	[ Polyp Stromal TGLs = 1-13 ]		

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 371

TRT#: 8

SEX: Female

DAY ON TEST: 14

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603561

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Bone Marrow	* Brain	* Clitoral Gland	* Esophagus
* Eye	* Harderian Gland	* Heart	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Kidney	* Liver
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Nose
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

\* Lym Node Mesen

Note: Death was attributed to chylothorax based on necropsy observations.

\* Spleen

Lymph Follic

Atrophy

Moderate

\* Thymus

Atrophy

Mild

PRIMARY CAUSE OF DEATH

- UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 372

TRT#: 8

SEX: Female

DAY ON TEST: 542

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603562

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Pituitary Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thymus	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Fatty Change	Focal, Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 1,2-6+13+14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 372

TRT#: 8

SEX: Female

DAY ON TEST: 542

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603562

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Olfactory Epi	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Minimal
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH

- UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 373

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603563

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Bone                      | * Brain                  |
| * Esophagus                | * Eye                     | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             | * Ovary                  |
| * Pancreas                 | * Salivary Glands         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                          |   |                       |                      |
|--------------------------|---|-----------------------|----------------------|
| * Adrenal Cortex         |   | Angiectasis           | Minimal              |
|                          |   | Hyperplasia           | Mild                 |
| * Bone Marrow            |   | Hyperplasia           | Moderate             |
| * Clitoral Gland         |   | Cyst                  |                      |
| * Heart                  |   | Cardiomyopathy        | Minimal              |
| * Kidney                 |   | Nephropathy           | Minimal              |
|                          |   | Pigmentation          | Minimal              |
| * Liver                  |   | Clear Cell Focus      |                      |
|                          |   | Eosinophilic Focus    |                      |
|                          |   | Fatty Change          | Focal, Minimal       |
|                          | Bile Duct                                 | Fibrosis              | Minimal              |
|                          | Bile Duct                                 | Hyperplasia           | Mild                 |
|                          |   | Inflammation          | Minimal              |
|                          |   | Mixed Cell Focus      |                      |
|                          | [ Mixed Cell Focus TGLs = 2,3-6+7+13+14 ] |                       |                      |
| * Lung                   | Alveolus                                  | Infiltration Cellular | Histiocyte, Minimal  |
| * Lymph Node, Mesenteric |   | Infiltration Cellular | Histiocyte, Moderate |
| * Nose                   | Olfactory Epi                             | Degeneration          | Mild                 |
|                          | Glands, Respirat Epith                    | Dilatation            | Minimal              |
|                          | Glands, Olfactory Epi                     | Dilatation            | Mild                 |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 373

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603563

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Transit Epithe	Dilatation	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Parathyroid Gland		Hyperplasia	Diffuse, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-14 ]		
* Spleen		Congestion	Minimal
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 4-5 ]		
* Thymus		Atrophy	Mild



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 374

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603564

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex	Adenoma	
	Angiectasis	Minimal
	Hypertrophy	Mild
	Vacuolization Cytoplasmic	Minimal
* Bone Marrow	Hyperplasia	Moderate
* Clitoral Gland	Inflammation	Minimal
* Heart	Cardiomyopathy	Minimal
* Kidney	Mineralization	Minimal
	Nephropathy	Minimal
	Pigmentation	Minimal
* Liver	Angiectasis	Minimal
	Basophilic Focus	
	Clear Cell Focus	
	Bile Duct	
	Cyst	
	Degeneration	Cystic, Minimal
	Eosinophilic Focus	
	Bile Duct	
	Fibrosis	Minimal
	Hepatocellular Carcinoma	
	Hepatodiaphragmatic Nodule	
	Bile Duct	
	Hyperplasia	Mild
	Hepatocyte	Minimal
	Hypertrophy	

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 374

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603564

ORGAN AND ACCOUNTABLE SITE STATUS

Inflammation  
 Mixed Cell Focus

Minimal

[ Hepatocellular Carcinoma TGLs = 5-16 ]  
 [ Hepatodiaphragmatic Nodule TGLs = 4-15 ]  
 [ Mixed Cell Focus TGLs = 6,7-6+7 ]

* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 2-14 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Minimal
	Glands, Olfactory Epi	Metaplasia	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pancreas	Acinus	Hyperplasia	Minimal
		Infiltration Cellular	Mononuclear CI, Minimal
	Note: The acinar cells were eosinophilic.		
* Pituitary Gland	Pars Distalis	Hyperplasia	Marked
	[ Hyperplasia TGLs = 3-8 ]		
* Spleen		Congestion	Minimal
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Moderate
* Uterus		Hemorrhage	Moderate

Note: The uterus lumen was filled with degenerate erythrocytes and other eosinophilic material.

\* PROTOCOL REQUIRED TISSUE

**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 374

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603564

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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[ Hemorrhage TGLs = 1-13 ]

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 375

TRT#: 8

SEX: Female

DAY ON TEST: 720

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603565

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Medulla        | Blood Vessel               | * Bone                    | * Brain                     |
| * Clitoral Gland         | * Esophagus                | * Eye                     | * Harderian Gland           |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      |
| * Lymph Node, Mesenteric | * Mammary Gland            | * Ovary                   | * Pancreas                  |
| * Parathyroid Gland      | * Salivary Glands          | * Skin                    | * Stomach, Forestomach      |
| * Stomach, Glandular     | * Thyroid Gland            | * Trachea                 | * Urinary Bladder           |
| * Uterus                 |                            |                           |                             |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                  |  |                           |                 |
|------------------|--|---------------------------|-----------------|
| * Adrenal Cortex |  | Angiectasis               | Minimal         |
|                  |  | Hyperplasia               | Mild            |
|                  |  | Vacuolization Cytoplasmic | Minimal         |
| * Bone Marrow    |  | Hyperplasia               | Mild            |
| * Heart          |  | Cardiomyopathy            | Minimal         |
| * Kidney         |  | Mineralization            | Minimal         |
|                  |  | Nephropathy               | Mild            |
|                  |  | Pigmentation              | Minimal         |
| * Liver          |  | Degeneration              | Cystic, Minimal |
|                  |  | Eosinophilic Focus        |                 |
|                  | Bile Duct                              | Fibrosis                  | Minimal         |
|                  |  | Hepatocellular Adenoma    |                 |
|                  | Bile Duct                              | Hyperplasia               | Minimal         |
|                  | Hepatocyte                             | Hypertrophy               | Minimal         |
|                  |  | Inflammation              | Minimal         |
|                  |  | Mixed Cell Focus          |                 |
|                  | [ Hepatocellular Adenoma TGLs = 1-13 ] |                           |                 |
| * Nose           | Olfactory Epi                          | Degeneration              | Mild            |
|                  | Glands, Respirat Epith                 | Dilatation                | Minimal         |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 375

TRT#: 8

SEX: Female

DAY ON TEST: 720

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603565

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Dilatation	Moderate
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Spleen	Lymph Follic	Atrophy	Moderate
		Congestion	Minimal
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 376

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603566

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Minimal
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Mild
		Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 5-16 ]		
	[ Mixed Cell Focus TGLs = 4-6+7+15+16 ]		
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 376

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603566

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Dilatation	Moderate
	Glands, Transit Epithe	Dilatation	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
	[ Hyperplasia TGLs = 1-13 ]		
* Spleen	Lymph Follic	Atrophy	Minimal
		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 2-5 ]		
* Thymus		Atrophy	Moderate
Tongue		Squamous Cell Papilloma	
	[ Squamous Cell Papilloma TGLs = 6-16 ]		
* Uterus		Polyp Stromal	
	[ Polyp Stromal TGLs = 3-14 ]		

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 377

TRT#: 8

SEX: Female

DAY ON TEST: 384

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603567

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Mammary Gland	* Ovary	* Pancreas
* Pituitary Gland	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular	* Parathyroid Gland	* Salivary Glands	* Thyroid Gland
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OBSERVATIONS

* Adren Cortex			
Note: One adrenal missing.			
* Bone Marrow		Hyperplasia	Moderate
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Basophilic Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

\* PROTOCOL REQUIRED TISSUE



**TDMS No.** 20107 - 03  
**Test Type:** CHRONIC  
**Route:** GAVAGE  
**Species/Strain:** RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

**CAS Number:** 99-97-8

**Date Report Requested:** 02/24/2011

**Time Report Requested:** 08:08:27

**First Dose M/F:** 10/20/04 / 10/21/04

**Lab:** BAT

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**ANIMAL ID:** 377

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 384

**DOSE:** 60 MG/KG

**DISP:** Natural Death

**HISTO:** 0603567

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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\* Thymus

Atrophy

Mild

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PRIMARY CAUSE OF DEATH

- UNCERTAIN

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 378

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603568

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                             |                          |                            |
|--------------------------|-----------------------------|--------------------------|----------------------------|
| * Adrenal Medulla        | Blood Vessel                | * Bone                   | * Brain                    |
| * Esophagus              | * Eye                       | * Harderian Gland        | * Intestine Large, Cecum   |
| * Intestine Large, Colon | * Intestine Small, Duodenum | * Intestine Small, Ileum | * Intestine Small, Jejunum |
| * Islets, Pancreatic     | * Lung                      | * Ovary                  | * Pancreas                 |
| * Parathyroid Gland      | * Salivary Glands           | * Skin                   | * Stomach, Forestomach     |
| * Stomach, Glandular     | * Thyroid Gland             | * Trachea                | * Urinary Bladder          |
| * Uterus                 |                             |                          |                            |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |                           |           |                          |                 |
|---------------------------|-----------|--------------------------|-----------------|
| * Adrenal Cortex          |           | Angiectasis              | Mild            |
|                           |           | Degeneration             | Cystic, Minimal |
| * Bone Marrow             |           | Hyperplasia              | Moderate        |
| * Clitoral Gland          |           | Cyst                     |                 |
| * Heart                   |           | Cardiomyopathy           | Minimal         |
| * Intestine Large, Rectum |           | Parasite Metazoan        |                 |
| * Kidney                  |           | Mineralization           | Minimal         |
|                           |           | Nephropathy              | Mild            |
|                           |           | Pigmentation             | Mild            |
| * Liver                   |           | Clear Cell Focus         |                 |
|                           |           | Degeneration             | Cystic, Mild    |
|                           |           | Eosinophilic Focus       |                 |
|                           |           | Fatty Change             | Focal, Minimal  |
|                           | Bile Duct | Fibrosis                 | Minimal         |
|                           |           | Hepatocellular Carcinoma |                 |
|                           | Bile Duct | Hyperplasia              | Mild            |
|                           |           | Inflammation             | Minimal         |
|                           |           | Mixed Cell Focus         |                 |

[ Hepatocellular Carcinoma TGLs = 4-15 ]  
 [ Mixed Cell Focus TGLs = 5-6+7+15+16 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 378

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603568

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Moderate
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Glands, Transit Epithe	Dilatation	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-14 ]		
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
	[ Fibrosis TGLs = 3-5 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 379

TRT#: 8

SEX: Female

DAY ON TEST: 610

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603569

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Heart	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thymus	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

* Lymph Node, Mandibular	* Salivary Glands
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OBSERVATIONS

* Bone Marrow		Hyperplasia	Mild
* Kidney		Mineralization	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Necrosis	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 379

TRT#: 8

SEX: Female

DAY ON TEST: 610

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603569

ORGAN AND ACCOUNTABLE SITE STATUS

* Pituitary Gland [ Angiectasis TGLs = 1-8 ]	Pars Distalis	Angiectasis	Moderate
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Angiectasis

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 380

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603570

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lymph Node, Mesenteric	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex	Angiectasis	Minimal
	Vacuolization Cytoplasmic	Minimal
* Bone Marrow	Hyperplasia	Moderate
* Clitoral Gland	Hyperplasia	Mild
	Inflammation	Minimal
* Heart	Cardiomyopathy	Minimal
* Intestine Large, Rectum	Parasite Metazoan	
* Kidney	Mineralization	Minimal
	Nephropathy	Marked
	Pigmentation	Minimal
* Liver	Basophilic Focus	
	Fatty Change	Diffuse, Moderate
	Hepatocellular Carcinoma	
	Inflammation	Minimal

Note: Much of the fat was in the form of very fine vacuoles in a lace-like pattern.

[ Fatty Change TGLs = 4-6+7+15 ]

[ Hepatocellular Carcinoma TGLs = 5-16 ]

* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Mammary Gland		Fibroadenoma	

Note: The tumor was cystic.

[ Fibroadenoma TGLs = 2-14 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 380

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603570

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Nose	Nerve	Atrophy	Mild
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 6-8 ]		
* Skin		Basal Cell Carcinoma	
	[ Basal Cell Carcinoma TGLs = 1-13 ]		
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Moderate
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 3-5 ]		
* Thymus		Atrophy	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 381

TRT#: 8

SEX: Female

DAY ON TEST: 468

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603571

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

**MISSING**

* Lymph Node, Mandibular	* Parathyroid Gland
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**OBSERVATIONS**

* Bone		Osteosarcoma	
	[ Osteosarcoma TGLs = 2-13 ]		
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Mild
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
* Lung		Osteosarcoma	Metastatic (Bone)
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 381

TRT#: 8

SEX: Female

DAY ON TEST: 468

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603571

ORGAN AND ACCOUNTABLE SITE STATUS

* Spleen	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Mild
	Lymph Follic	Atrophy	Moderate
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
* Thymus	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - Bone Osteosarcoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 382

TRT#: 8

SEX: Female

DAY ON TEST: 583

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603572

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Heart
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Cyst	
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
		Hematopoietic Cell Proliferation	Minimal
* Lung		Alveolar/Bronchiolar Adenoma	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 382

TRT#: 8

SEX: Female

DAY ON TEST: 583

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603572

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Inflammation	Minimal
	Glands, Olfactory Epi	Metaplasia	Respiratory, Minimal
* Pituitary Gland	Pars Distalis	Metaplasia	Minimal
* Skin		Hyperplasia	Moderate
	[ Sarcoma TGLs = 1-13 ]	Sarcoma	
* Spleen	Lymph Follic	Atrophy	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Moderate
		Pigmentation	Minimal
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH - Skin Sarcoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 383

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603573

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Minimal
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Eye			
Note: Optic nerves in block 9.			
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 2-6+7+13 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Olfactory Epi	Degeneration	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 383

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603573

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Transit Epithe	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pituitary Gland		Cyst	
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 1-5 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 384

TRT#: 8

SEX: Female

DAY ON TEST: 729

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603574

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder	* Uterus	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Degeneration	Cystic, Moderate
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Hepatocellular Adenoma TGLs = 2-13 ]		
	[ Mixed Cell Focus TGLs = 2-6+7+13 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Glands, Olfactory Epi	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 384

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 729

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603574

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Respirat Epith	Hyperplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Necrosis	Mild
* Pancreas	Acinus	Atrophy	Moderate
		Infiltration Cellular	Mononuclear CI, Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen	Lymph Follic	Atrophy	Moderate
		Congestion	Minimal
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 1-5 ]		
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 385

TRT#: 8

SEX: Female

DAY ON TEST: 701

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603575

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Esophagus
* Eye	* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon
* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum
* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Salivary Glands	* Skin
* Stomach, Glandular	* Trachea		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Cyst	
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
		Infarct	Moderate
	Pelvis	Inflammation	Moderate
	Papilla	Necrosis	Moderate
		Nephropathy	Marked
		Pigmentation	Mild
	[ Infarct TGLs = 1-5 ]		
	[ Nephropathy TGLs = 2-5 ]		
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
	Hepatocyte	Necrosis	Moderate
* Nose	Respirat Epith	Accumulation, Hyaline Droplet	Minimal
	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild

\* PROTOCOL REQUIRED TISSUE



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 385

TRT#: 8

SEX: Female

DAY ON TEST: 701

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603575

ORGAN AND ACCOUNTABLE SITE STATUS

	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Mild
		Inflammation	Minimal
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Parathyroid Gland		Hyperplasia	Diffuse, Minimal
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 4-8 ]			
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
* Thymus		Atrophy	Moderate
* Thyroid Gland	C Cell	Adenoma	
* Urinary Bladder		Inflammation	Minimal
* Uterus		Polyp Stromal	
[ Polyp Stromal TGLs = 3-13 ]			

PRIMARY CAUSE OF DEATH - Kidney Nephropathy  
 CONTRIBUTORY CAUSE OF DEATH - Liver Hepatocyte Necrosis

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 386

TRT#: 8

SEX: Female

DAY ON TEST: 625

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603576

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland	* Ovary
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thyroid Gland	* Trachea	* Urinary Bladder
* Uterus			

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
		Hyperplasia	Minimal
		Necrosis	Mild
		Vacuolization Cytoplasmic	Minimal
* Adrenal Medulla		Hyperplasia	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
* Nose	Transit Epithe	Adenoma	
	Nerve	Atrophy	Moderate
	Olfactory Epi	Degeneration	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 386

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 625

**DOSE:** 60 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603576

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Moderate
		Inflammation	Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Moderate
	Glands, Respirat Epith	Metaplasia	Respiratory, Minimal
* Pancreas		Cyst	
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Mild
* Spleen	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Minimal
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 387

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 547

**DOSE:** 60 MG/KG

**DISP:** Moribund Sacrifice

**HISTO:** 0603577

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| * Adrenal Medulla          | Blood Vessel              | * Brain                     | * Clitoral Gland         |
| * Esophagus                | * Eye                     | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             | * Ovary                  |
| * Parathyroid Gland        | * Salivary Glands         | * Skin                      | * Stomach, Forestomach   |
| * Stomach, Glandular       | * Thyroid Gland           | * Trachea                   | * Urinary Bladder        |
| * Uterus                   |                           |                             |                          |

**MISSING**

- \* Lymph Node, Mandibular

**OBSERVATIONS**

- |                          |                             |                       |                     |
|--------------------------|-----------------------------|-----------------------|---------------------|
| * Adrenal Cortex         |                             | Angiectasis           | Mild                |
| * Bone                   |                             | Chordoma              |                     |
|                          | [ Chordoma TGLs = 1-13+14 ] |                       |                     |
| * Bone Marrow            |                             | Hyperplasia           | Moderate            |
| * Heart                  |                             | Cardiomyopathy        | Minimal             |
| * Kidney                 |                             | Mineralization        | Minimal             |
|                          |                             | Nephropathy           | Minimal             |
|                          |                             | Pigmentation          | Mild                |
| * Liver                  |                             | Eosinophilic Focus    |                     |
|                          | Bile Duct                   | Hyperplasia           | Mild                |
|                          | Hepatocyte                  | Hypertrophy           | Minimal             |
|                          |                             | Inflammation          | Minimal             |
| * Lung                   | Alveolus                    | Infiltration Cellular | Histiocyte, Minimal |
| * Lymph Node, Mesenteric |                             | Infiltration Cellular | Histiocyte, Mild    |
| * Nose                   | Olfactory Epi               | Degeneration          | Moderate            |
|                          | Glands, Olfactory Epi       | Dilatation            | Moderate            |
|                          | Glands, Respirat Epith      | Dilatation            | Minimal             |
|                          | Respirat Epith              | Hyperplasia           | Minimal             |
|                          | Transit Epithe              | Hyperplasia           | Mild                |
|                          | Glands, Transit Epithe      | Hyperplasia           | Mild                |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 387

TRT#: 8

SEX: Female

DAY ON TEST: 547

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603577

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
* Pancreas	Acinus	Atrophy	Minimal
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland	Pars Distalis	Hyperplasia	Minimal
* Spleen		Congestion	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - Bone Chordoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 388

TRT#: 8

SEX: Female

DAY ON TEST: 670

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603578

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                            |                           |                             |                          |
|----------------------------|---------------------------|-----------------------------|--------------------------|
| Blood Vessel               | * Bone                    | * Brain                     | * Clitoral Gland         |
| * Esophagus                | * Eye                     | * Harderian Gland           | * Intestine Large, Cecum |
| * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum | * Intestine Small, Ileum |
| * Intestine Small, Jejunum | * Islets, Pancreatic      | * Lung                      | * Mammary Gland          |
| * Ovary                    | * Pancreas                | * Parathyroid Gland         | * Salivary Glands        |
| * Skin                     | * Stomach, Forestomach    | * Stomach, Glandular        | * Trachea                |
| * Urinary Bladder          | * Uterus                  |                             |                          |

MISSING

- \* Lymph Node, Mandibular

AUTO PRECLUDES DIAG.

- |                  |                   |         |                          |
|------------------|-------------------|---------|--------------------------|
| * Adrenal Cortex | * Adrenal Medulla | * Liver | * Lymph Node, Mesenteric |
| * Nose           | * Thyroid Gland   |         |                          |

OBSERVATIONS

- |   |                        |                |          |
|---|------------------------|----------------|----------|
| * Bone Marrow                             |                        | Hyperplasia    | Mild     |
| * Heart                                   |                        | Cardiomyopathy | Minimal  |
| * Kidney                                  |                        | Mineralization | Minimal  |
|   |                        | Nephropathy    | Mild     |
|   |                        | Pigmentation   | Minimal  |
| * Liver                                   |                        |                |          |
| Note: TGL 1 = NCL (No Correlating Lesion) |                        |                |          |
| * Pituitary Gland                         | Pars Distalis          | Adenoma        |          |
|   | [ Adenoma TGLs = 2-8 ] |                |          |
| * Spleen                                  | Capsule                | Fibrosis       | Minimal  |
|   |                        | Pigmentation   | Moderate |
| * Thymus                                  |                        | Atrophy        | Mild     |

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 389

TRT#: 8

SEX: Female

DAY ON TEST: 537

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603579

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

- |                          |                            |                           |                             |
|--------------------------|----------------------------|---------------------------|-----------------------------|
| * Adrenal Cortex         | * Adrenal Medulla          | Blood Vessel              | * Bone                      |
| * Brain                  | * Esophagus                | * Eye                     | * Harderian Gland           |
| * Intestine Large, Cecum | * Intestine Large, Colon   | * Intestine Large, Rectum | * Intestine Small, Duodenum |
| * Intestine Small, Ileum | * Intestine Small, Jejunum | * Islets, Pancreatic      | * Mammary Gland             |
| * Ovary                  | * Parathyroid Gland        | * Pituitary Gland         | * Salivary Glands           |
| * Skin                   | * Stomach, Forestomach     | * Stomach, Glandular      | * Thyroid Gland             |
| * Trachea                | * Urinary Bladder          | * Uterus                  |                             |

MISSING

- \* Lymph Node, Mandibular

OBSERVATIONS

- |   |                        |                       |                      |
|---|------------------------|-----------------------|----------------------|
| * Bone Marrow                           |                        | Hyperplasia           | Moderate             |
| * Clitoral Gland                        |                        | Inflammation          | Minimal              |
| * Eye                                   |                        |                       |                      |
| Note: One eye cannibalized.             |                        |                       |                      |
| * Harderian GI                          |                        |                       |                      |
| Note: One Harderian gland cannibalized. |                        |                       |                      |
| * Heart                                 |                        | Cardiomyopathy        | Mild                 |
| * Kidney                                |                        | Mineralization        | Minimal              |
|   |                        | Pigmentation          | Minimal              |
| * Liver                                 |                        | Clear Cell Focus      |                      |
|   | Bile Duct              | Hyperplasia           | Minimal              |
| * Lung                                  | Alveolus               | Infiltration Cellular | Histiocyte, Minimal  |
| * Lymph Node, Mesenteric                |                        | Infiltration Cellular | Histiocyte, Moderate |
| * Nose                                  | Olfactory Epi          | Degeneration          | Mild                 |
|   | Glands, Respirat Epith | Dilatation            | Mild                 |
|   | Glands, Olfactory Epi  | Dilatation            | Mild                 |
|   | Respirat Epith         | Hyperplasia           | Minimal              |
|   | Glands                 | Hyperplasia           | Minimal              |
|   | Transit Epithe         | Hyperplasia           | Minimal              |
|   | Glands, Respirat Epith | Hyperplasia           | Mild                 |

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 389

TRT#: 8

SEX: Female

DAY ON TEST: 537

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603579

ORGAN AND ACCOUNTABLE SITE STATUS

	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas		Infiltration Cellular	Mononuclear CI, Minimal
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild

PRIMARY CAUSE OF DEATH

- UNCERTAIN



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 390

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603580

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Fatty Change	Focal, Mild
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 4-6+7+14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Mild
Mesentery	Fat	Necrosis	Moderate
	[ Necrosis TGLs = 2-13 ]		
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 390

TRT#: 8

SEX: Female

DAY ON TEST: 730

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603580

ORGAN AND ACCOUNTABLE SITE STATUS

	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
		Inflammation	Minimal
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 1-8 ]		
* Spleen		Congestion	Moderate
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild
	[ Fibrosis TGLs = 3-5 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

**ANIMAL ID:** 391

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603581

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Moderate
		Pigmentation	Minimal
* Liver		Angiectasis	Minimal
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lung	Alveolar Epith	Hyperplasia	Minimal
	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Moderate

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 391

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 730

**DOSE:** 60 MG/KG

**DISP:** Terminal Sacrifice

**HISTO:** 0603581

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Transit Epithe	Dilatation	Minimal
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Moderate
		Inflammation	Minimal
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
* Pancreas	Acinus	Atrophy	Minimal
		Cyst	
		Infiltration Cellular	Mononuclear CI, Minimal
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Mild
* Spleen	Lymph Follic	Atrophy	Marked
		Congestion	Mild
	Capsule	Fibrosis	Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 1-5 ]		
* Thymus		Atrophy	Mild

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 392

TRT#: 8

SEX: Female

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603582

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lymph Node, Mesenteric	* Mammary Gland
* Ovary	* Pancreas	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland
* Trachea	* Urinary Bladder		

**MISSING**

* Lymph Node, Mandibular	* Parathyroid Gland
--------------------------	---------------------

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Mild
	Pelvis	Inflammation	Mild
		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Mild
* Liver		Basophilic Focus	
		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatocellular Adenoma	
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	

[ Hepatocellular Adenoma TGLs = 2-13 ]

[ Mixed Cell Focus TGLs = 2-6+7+13 ]

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 392

TRT#: 8

SEX: Female

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603582

ORGAN AND ACCOUNTABLE SITE STATUS

* Lung	Alveolus	Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Mild
		Inflammation	Minimal
	Glands, Olfactory Epi	Metaplasia	Mild
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
	[ Fibrosis TGLs = 1-5 ]		
* Thymus		Atrophy	Mild
* Uterus		Polyp Stromal	

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 393

TRT#: 8

SEX: Female

DAY ON TEST: 714

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603583

ORGAN AND ACCOUNTABLE SITE STATUS

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Glandular	* Thyroid Gland	* Urinary Bladder	* Uterus

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Vacuolization Cytoplasmic	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Hyperplasia	Moderate
		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney	Pelvis, Transit Epithe	Hyperplasia	Moderate
		Infarct	Moderate
	Pelvis	Inflammation	Moderate
		Nephropathy	Marked
		Pigmentation	Mild
	[ Infarct TGLs = 1-5 ]		
	[ Nephropathy TGLs = 2-5 ]		
* Liver	Bile Duct	Hyperplasia	Minimal
	Hepatocyte	Hypertrophy	Moderate
		Inflammation	Minimal
	Hepatocyte	Necrosis	Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 4-14 ]		
* Nose	Transit Epithe	Adenoma	
	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 393

TRT#: 8

SEX: Female

DAY ON TEST: 714

DOSE: 60 MG/KG

DISP: Moribund Sacrifice

HISTO: 0603583

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Olfactory Epi	Dilatation	Moderate
	Glands, Transit Epithe	Dilatation	Minimal
	Transit Epithe	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Moderate
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Glands, Olfactory Epi	Metaplasia	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
* Pancreas	Acinus	Atrophy	Mild
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen	Lymph Follic	Atrophy	Mild
	Capsule	Fibrosis	Mild
	Capsule	Hypertrophy	Mesothelium, Mild
		Pigmentation	Moderate
* Stomach, Forestomach		Hyperplasia	Squamous, Mild
* Thymus		Atrophy	Mild
Tongue		Squamous Cell Carcinoma	
	[ Squamous Cell Carcinoma TGLs = 3-13 ]		
* Trachea		Inflammation	Suppurative, Minimal

PRIMARY CAUSE OF DEATH - Kidney Nephropathy



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 394

TRT#: 8

SEX: Female

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603584

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Minimal
		Hyperplasia	Mild
		Hypertrophy	Mild
		Vacuolization Cytoplasmic	Minimal
* Bone Marrow		Hyperplasia	Moderate
* Clitoral Gland		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Mild
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
		Hepatodiaphragmatic Nodule	
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
	[ Clear Cell Focus TGLs = 3-6+7+14 ]		
	[ Eosinophilic Focus TGLs = 3-14 ]		
	[ Hepatodiaphragmatic Nodule TGLs = 2-13 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 394

TRT#: 8

SEX: Female

DAY ON TEST: 728

DOSE: 60 MG/KG

DISP: Terminal Sacrifice

HISTO: 0603584

ORGAN AND ACCOUNTABLE SITE STATUS

* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
		Foreign Body	
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
* Pituitary Gland		Cyst	
	Pars Distalis	Hyperplasia	Marked
[ Cyst TGLs = 4-8 ]			
* Spleen	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Mild
	Capsule	Hypertrophy	Mesothelium, Minimal
		Pigmentation	Mild
[ Fibrosis TGLs = 1-5 ]			
* Stomach, Forestomach		Hyperplasia	Squamous, Moderate
* Thymus		Atrophy	Moderate

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 395

TRT#: 8

SEX: Female

DAY ON TEST: 607

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603585

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Heart	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Mammary Gland	* Ovary	* Pancreas
* Parathyroid Gland	* Salivary Glands	* Skin	* Stomach, Forestomach
* Stomach, Glandular	* Thymus	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Minimal
* Bone Marrow		Hyperplasia	Mild
* Kidney		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
		Hepatodiaphragmatic Nodule	
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 2-14 ]		
	[ Hepatodiaphragmatic Nodule TGLs = 1-13 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 395

TRT#: 8

SEX: Female

DAY ON TEST: 607

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603585

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
[ Adenoma TGLs = 3-8 ]			
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 396

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603586

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Cortex	* Adrenal Medulla	Blood Vessel	* Bone
* Brain	* Clitoral Gland	* Esophagus	* Eye
* Harderian Gland	* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum
* Intestine Small, Duodenum	* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic
* Lung	* Lymph Node, Mesenteric	* Mammary Gland	* Ovary
* Pancreas	* Parathyroid Gland	* Pituitary Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

AUTO PRECLUDES DIAG.

\* Thyroid Gland

OBSERVATIONS

* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Kidney		Pigmentation	Minimal
* Liver	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
* Nose	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Glands, Transit Epithe	Hyperplasia	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Olfactory Epi	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 396

TRT#: 8

SEX: Female

DAY ON TEST: 459

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603586

**ORGAN AND ACCOUNTABLE SITE STATUS**

* Spleen	Glands, Olfactory Epi Lymph Follic Capsule	Necrosis Atrophy Fibrosis Pigmentation	Moderate Moderate Minimal Mild
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 397

TRT#: 8

SEX: Female

DAY ON TEST: 720

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603687

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Trachea
* Urinary Bladder	* Uterus		

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Mild
* Clitoral Gland		Inflammation	Minimal
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Minimal
		Inflammation	Minimal
		Mixed Cell Focus	
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Moderate
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Glands, Transit Epithe	Dilatation	Minimal
	Respirat Epith	Hyperplasia	Mild
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 397

TRT#: 8

SEX: Female

DAY ON TEST: 720

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603687

ORGAN AND ACCOUNTABLE SITE STATUS

		Inflammation	Minimal
	Glands, Olfactory Epi	Metaplasia	Minimal
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Necrosis	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen	Capsule	Fibrosis	Minimal
		Pigmentation	Mild
* Thymus		Atrophy	Mild
* Thyroid Gland	C Cell	Hyperplasia	Mild

PRIMARY CAUSE OF DEATH

- UNCERTAIN



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 398

TRT#: 8

SEX: Female

DAY ON TEST: 612

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603588

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Lymph Node, Mesenteric
* Ovary	* Pancreas	* Parathyroid Gland	* Salivary Glands
* Skin	* Stomach, Forestomach	* Stomach, Glandular	* Thymus
* Thyroid Gland	* Trachea	* Urinary Bladder	* Uterus

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Bone Marrow		Hyperplasia	Moderate
* Heart		Cardiomyopathy	Minimal
* Intestine Large, Rectum		Parasite Metazoan	
* Kidney		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Hyperplasia	Mild
	Hepatocyte	Hypertrophy	Minimal
		Inflammation	Minimal
* Mammary Gland		Fibroadenoma	
	[ Fibroadenoma TGLs = 1-13 ]		
* Nose	Olfactory Epi	Degeneration	Minimal
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild
	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

**ANIMAL ID:** 398

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 612

**DOSE:** 60 MG/KG

**DISP:** Natural Death

**HISTO:** 0603588

**ORGAN AND ACCOUNTABLE SITE STATUS**

	Glands, Transit Epithe	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pituitary Gland	Pars Distalis	Adenoma	
	[ Adenoma TGLs = 2-8 ]		
* Spleen	Lymph Follic	Atrophy	Mild
		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Mild

PRIMARY CAUSE OF DEATH - Mammary Gland Fibroadenoma

CONTRIBUTORY CAUSE OF DEATH - Pituitary Gland Pars Distalis Adenoma

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 399

TRT#: 8

SEX: Female

DAY ON TEST: 706

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603589

ORGAN AND ACCOUNTABLE SITE STATUS

NORMAL

* Adrenal Medulla	Blood Vessel	* Bone	* Brain
* Clitoral Gland	* Esophagus	* Eye	* Harderian Gland
* Intestine Large, Cecum	* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum
* Intestine Small, Ileum	* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung
* Mammary Gland	* Ovary	* Pancreas	* Parathyroid Gland
* Salivary Glands	* Skin	* Stomach, Forestomach	* Stomach, Glandular
* Thyroid Gland	* Trachea	* Urinary Bladder	

MISSING

\* Lymph Node, Mandibular

OBSERVATIONS

* Adrenal Cortex		Angiectasis	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Minimal
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Eosinophilic Focus TGLs = 2-7 ]		
	[ Mixed Cell Focus TGLs = 2-6+14 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Mild
	Glands, Olfactory Epi	Dilatation	Mild
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/24/2011

Time Report Requested: 08:08:27

First Dose M/F: 10/20/04 / 10/21/04

Lab: BAT

ANIMAL ID: 399

TRT#: 8

SEX: Female

DAY ON TEST: 706

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603589

ORGAN AND ACCOUNTABLE SITE STATUS

	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Mild
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pituitary Gland	Pars Distalis	Hyperplasia	Moderate
* Spleen		Congestion	Mild
	Capsule	Fibrosis	Mild
		Hematopoietic Cell Proliferation	Mild
		Pigmentation	Moderate
* Thymus		Atrophy	Mild
* Uterus		Polyp Stromal	

[ Polyp Stromal TGLs = 1-13 ]

PRIMARY CAUSE OF DEATH

- UNCERTAIN

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
 Time Report Requested: 08:08:27  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

ANIMAL ID: 400

TRT#: 8

SEX: Female

DAY ON TEST: 721

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603590

**ORGAN AND ACCOUNTABLE SITE STATUS**

**NORMAL**

Blood Vessel	* Bone	* Brain	* Clitoral Gland
* Esophagus	* Eye	* Harderian Gland	* Intestine Large, Cecum
* Intestine Large, Colon	* Intestine Large, Rectum	* Intestine Small, Duodenum	* Intestine Small, Ileum
* Intestine Small, Jejunum	* Islets, Pancreatic	* Lung	* Mammary Gland
* Ovary	* Parathyroid Gland	* Salivary Glands	* Skin
* Stomach, Forestomach	* Stomach, Glandular	* Thyroid Gland	* Trachea
* Urinary Bladder	* Uterus		

**MISSING**

\* Lymph Node, Mandibular

**OBSERVATIONS**

* Adrenal Cortex		Angiectasis	Mild
		Hypertrophy	Minimal
* Adrenal Medulla		Hyperplasia	Mild
* Bone Marrow		Hyperplasia	Mild
* Heart		Cardiomyopathy	Minimal
* Kidney		Mineralization	Minimal
		Nephropathy	Minimal
		Pigmentation	Minimal
* Liver		Clear Cell Focus	
		Degeneration	Cystic, Minimal
		Eosinophilic Focus	
	Bile Duct	Fibrosis	Mild
	Bile Duct	Hyperplasia	Mild
		Inflammation	Minimal
		Mixed Cell Focus	
	[ Mixed Cell Focus TGLs = 1-6+7+13 ]		
* Lymph Node, Mesenteric		Infiltration Cellular	Histiocyte, Minimal
* Nose	Olfactory Epi	Degeneration	Mild
	Glands, Respirat Epith	Dilatation	Minimal
	Glands, Olfactory Epi	Dilatation	Mild

\* PROTOCOL REQUIRED TISSUE

TDMS No. 20107 - 03  
Test Type: CHRONIC  
Route: GAVAGE  
Species/Strain: RATS/F 344/N

P14: INDIVIDUAL ANIMAL PATHOLOGY DATA

N,N-Dimethyl-p-toluidine  
CAS Number: 99-97-8

Date Report Requested: 02/24/2011  
Time Report Requested: 08:08:27  
First Dose M/F: 10/20/04 / 10/21/04  
Lab: BAT

ANIMAL ID: 400

TRT#: 8

SEX: Female

DAY ON TEST: 721

DOSE: 60 MG/KG

DISP: Natural Death

HISTO: 0603590

ORGAN AND ACCOUNTABLE SITE STATUS

	Transit Epithe	Hyperplasia	Minimal
	Respirat Epith	Hyperplasia	Minimal
	Glands, Respirat Epith	Hyperplasia	Mild
	Glands, Olfactory Epi	Hyperplasia	Mild
	Glands, Transit Epithe	Hyperplasia	Minimal
	Olfactory Epi	Hyperplasia	Basal Cell, Minimal
		Inflammation	Mild
	Olfactory Epi	Metaplasia	Respiratory, Minimal
	Glands, Respirat Epith	Metaplasia	Respiratory, Moderate
	Glands, Olfactory Epi	Metaplasia	Minimal
	Glands, Olfactory Epi	Necrosis	Moderate
* Pancreas		Cyst	
* Pituitary Gland	Pars Distalis	Adenoma	
* Spleen		Congestion	Minimal
	Capsule	Fibrosis	Minimal
		Hematopoietic Cell Proliferation	Minimal
		Pigmentation	Moderate
* Thymus		Atrophy	Moderate

PRIMARY CAUSE OF DEATH - UNCERTAIN

\*\*\* END OF REPORT \*\*\*