

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

N,N-Dimethyl-p-toluidine

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

**Date Report Requested:** 02/28/2011

**Time Report Requested:** 11:17:44

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

**Lab:** BAT

F1\_Rev.1\_\_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

	DAY ON TEST																									
<b>FISCHER 344 RATS MALE</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	7	7	7	7	7	6	7	7	6	7	7	6	6	7	7	7	7	7	7	6	7	7	7			
	2	2	2	2	2	8	2	2	4	2	2	8	1	2	2	2	2	1	2	1	2	2	2	0		
<b>0 MG/KG</b>	8	7	9	8	8	0	7	7	5	7	7	8	0	8	7	7	7	0	7	0	7	7	8			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	males (cont...)		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	

**ALIMENTARY SYSTEM**

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon Parasite Metazoan	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum Parasite Metazoan	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																								
Basophilic Focus	X	X	X		X			X		X	X			X		X	X			X		X	X	
Clear Cell Focus	X	X	X	X	X		X	X			X			X	X	X	X			X		X	X	
Congestion																								
Degeneration, Cystic															1							1		
Eosinophilic Focus			X					X	X					X	X									
Fatty Change, Focal																	2						2	
Fatty Change, Diffuse																				2				
Hematopoietic Cell Proliferation																			1					
Hemorrhage																								2
Hepatodiaphragmatic Nodule			X										X	X							X			

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:  
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate  
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

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

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

FISCHER 344 RATS MALE 0 MG/KG	DAY ON TEST																									ANIMAL ID	males (cont...)
	0 7 2 8	0 7 2 7	0 7 2 9	0 7 2 8	0 7 2 8	0 7 2 8	0 6 2 0	0 7 2 7	0 7 2 7	0 6 2 5	0 7 2 7	0 6 2 8	0 6 2 1	0 7 2 8	0 7 2 7	0 7 2 7	0 7 2 7	0 6 2 1	0 7 2 7	0 6 2 1	0 7 2 2	0 7 2 2	0 7 2 2	0 6 2 1			
Inflammation	1	1	1	1	1		1	1		1	1		1	1	1	1	2		1	1	1	2	1	1			
Mixed Cell Focus	X	X	X	X							X				X				X				X				
Bile Duct, Fibrosis		1		1	1		1				1			1								1	1				
Bile Duct, Hyperplasia		1	1	1	2	2	1	1		1	1	1		2	2				2		1	1	1	1	1		
Hepatocyte, Necrosis						1													1								
Mesentery							+	+					+											+			
Fat, Necrosis							3	2					3											3			
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Basophilic Focus																2											
Cyst																											
Infiltration Cellular, Mononuclear Cell	1	1		1					1			1		2	1		2			1			1				
Acinus, Atrophy												2	2	2	1	1		3			1		3	2			
Acinus, Hyperplasia		2																						2			
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Erosion																											
Inflammation																											
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Erosion																								1			
Tooth																											
Peridental Tissue, Inflammation																											

**CARDIOVASCULAR SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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 Lab: BAT

FISCHER 344 RATS MALE 0 MG/KG	DAY ON TEST																									ANIMAL ID	males (cont...)
	0 7 2 8	0 7 2 7	0 7 2 9	0 7 2 8	0 7 2 8	0 6 2 0	0 7 2 7	0 7 2 7	0 6 4 5	0 7 2 7	0 6 2 7	0 6 1 0	0 7 2 8	0 6 2 8	0 7 2 7	0 7 2 7	0 6 2 7	0 7 2 7	0 6 1 0	0 7 2 7	0 6 2 7	0 7 2 9	0 7 2 7	0 7 2 8	0 6 2 9		
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy	2	2	1	1	1	1	1	1	1	1	2	1	1	2	1	2	1		1	2	2	2	2	2	2		
Pigmentation																											
<b>ENDOCRINE SYSTEM</b>																											
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Angiectasis												1			1			2	2		2		1			1	
Hyperplasia								1	2			2						1	2		2			1	1		
Hypertrophy													1	1							2		1	1			
Vacuolization Cytoplasmic			1		1	1	1	1	2			2	1							3		1		2	1	2	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia			1			1	1	2		1		2	3			2				2							
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																											
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia, Focal													2														
Hyperplasia, Diffuse									2																		
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst				X																							
Pars Distalis, Hemorrhage																											
Pars Distalis, Hyperplasia			1	2	1				3							3								2	3	2	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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FISCHER 344 RATS MALE	DAY ON TEST																									ANIMAL ID		
	0 7 2 8	0 7 2 7	0 7 2 9	0 7 2 8	0 7 2 8	0 6 2 0	0 7 2 7	0 7 2 7	0 6 2 5	0 7 2 7	0 6 2 8	0 6 2 1	0 7 2 2	0 7 2 2	0 7 2 2	0 7 2 2	0 7 2 1	0 7 2 2	0 6 2 1	0 7 2 2	0 7 2 2	0 7 2 2	0 7 2 2	0 6 2 2	0 7 2 3			0 7 2 4
<b>0 MG/KG</b>	0 0 0 0 0 1	0 0 0 0 0 2	0 0 0 0 0 3	0 0 0 0 0 4	0 0 0 0 0 5	0 0 0 0 0 6	0 0 0 0 0 7	0 0 0 0 0 8	0 0 0 0 0 9	0 0 0 0 0 0	0 0 0 0 0 1	0 0 0 0 0 1	0 0 0 0 0 2	0 0 0 0 0 3	0 0 0 0 0 4	0 0 0 0 0 5	0 0 0 0 0 6	0 0 0 0 0 7	0 0 0 0 0 8	0 0 0 0 0 9	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 1	0 0 0 0 0 2	0 0 0 0 0 3	0 0 0 0 0 4	0 0 0 0 0 5	<b>males (cont...)</b>
C-cell, Hyperplasia									1	2		3						3		1							1	

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

Coagulating Gland  
 Inflammation  
 Epithelium, Hyperplasia

+  
4  
3

Epididymis

+ +

Preputial Gland  
 Hyperplasia  
 Inflammation

+ 3  
 1 2 2 2 1 2 2 2 2 1 1 2 2 1 1 2 2 1 1 2 1 1 2 2 2

Prostate  
 Inflammation  
 Epithelium, Hyperplasia

+  
 2 3 2 1 3 2 1 3 2 1 3 3 1 3 1 2 1 2 1 2 1 1 1 1  
 1 1 1 1

Seminal Vesicle  
 Inflammation

+  
 3

Testes  
 Mineralization  
 Interstitial Cell, Hyperplasia

+  
 1 2 1 2 1 1

**HEMATOPOIETIC SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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|   |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                        |  |
|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------|--|
| DAY ON TEST                             |  | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6                      |  |
| <b>FISCHER 344 RATS MALE</b>            |  | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 2 | 4 | 2 | 2 | 8 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 9                      |  |
| <b>0 MG/KG</b>                          |  | 8 | 7 | 9 | 8 | 8 | 0 | 7 | 7 | 5 | 7 | 7 | 8 | 0 | 8 | 7 | 7 | 7 | 0 | 7 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 9                      |  |
| ANIMAL ID                               |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                      |  |
|   |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                      |  |
|   |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                      |  |
|   |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2                      |  |
|   |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | <b>males (cont...)</b> |  |
| Bone Marrow                             |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                        |  |
| Hyperplasia                             |  |   |   |   |   |   |   |   |   | 4 |   |   | 4 |   | 2 |   | 2 |   | 3 | 1 |   |   |   |   |   | 3 | 2 |                        |  |
| Necrosis                                |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                        |  |
| Lymph Node                              |  |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   | + |                        |  |
| Deep Cervical, Hyperplasia, Plasma Cell |  |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                        |  |
| Lymph Node, Mandibular                  |  | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |                        |  |
| Lymph Node, Mesenteric                  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                        |  |
| Hyperplasia, Lymphoid                   |  |   |   |   |   |   |   |   | 2 |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                        |  |
| Infiltration Cellular, Histiocyte       |  | 1 | 1 |   |   |   | 1 |   |   |   |   |   | 1 | 1 |   |   | 1 |   | 1 |   | 1 |   | 1 | 1 |   |   |   |                        |  |
| Spleen                                  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                        |  |
| Congestion                              |  |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                        |  |
| Hematopoietic Cell Proliferation        |  | 1 | 1 |   | 1 | 1 |   | 1 | 1 |   | 1 | 1 |   | 1 | 1 | 1 | 1 |   | 1 | 1 |   | 1 | 1 |   | 1 | 1 |   |                        |  |
| Pigmentation                            |  | 1 | 1 | 1 | 1 | 1 |   | 1 |   | 1 | 1 |   | 2 | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 | 2 | 1 |   |   |   |   |                        |  |
| Capsule, Fibrosis                       |  |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                        |  |
| Thymus                                  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                        |  |
| Atrophy                                 |  | 4 | 3 | 2 |   | 2 |   | 4 | 3 | 4 | 2 | 2 | 4 | 3 | 2 | 2 | 4 | 4 | 4 | 2 | 3 | 2 | 3 | 2 | 2 |   |   |                        |  |

**INTEGUMENTARY SYSTEM**

|               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skin          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

**MUSCULOSKELETAL SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:  
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate  
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked



|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                                  |   |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------------|---|
| <b>FISCHER 344 RATS MALE</b><br><br><b>0 MG/KG</b> | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | <b>males</b><br><b>(cont...)</b> |   |
|  |             | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |                                  | 6 |
|  |             | 2 | 2 | 2 | 2 | 2 | 8 | 2 | 2 | 4 | 2 | 2 | 8 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 |                                  | 2 |
| ANIMAL ID  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                                |   |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                                |   |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                                |   |
|  | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2                                |   |

Inflammation

2

**SPECIAL SENSES SYSTEM**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cornea, Inflammation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Inflammation         |   |   |   | 2 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |
| Zymbal's Gland       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accumulation, Hyaline Droplet                |   |   |   |   |   |   |   | 2 |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |
| Mineralization                               | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Nephropathy                                  | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 3 | 2 |   |
| Pigmentation                                 |   |   |   |   |   |   |   |   | 3 |   |   | 2 |   |   |   |   | 2 |   |   |   | 1 |   | 1 | 1 |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |
| Urinary Bladder                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked



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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |
|-----------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
|                       | 03737       | 07728 | 07729 | 07728 | 07728 | 07729 | 07729 | 07728 | 07729 | 07728 | 07729 | 07728 | 07729 | 07728 | 07729 | 07728 | 07729 | 07728 | 07729 | 07728 | 07729 | 07728 | 07729 | 07728 |          | 07729 |
| 0 MG/KG               | 0026        | 0027  | 0028  | 0029  | 0030  | 0031  | 0032  | 0033  | 0034  | 0035  | 0036  | 0037  | 0038  | 0039  | 0040  | 0041  | 0042  | 0043  | 0044  | 0045  | 0046  | 0047  | 0048  | 0049  | 0050     |       |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |         |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---------|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +     | 50      |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +     | 50      |
| Intestine Large, Colon<br>Parasite Metazoan  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X     | 50<br>1 |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X     | 50<br>3 |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +     | 50      |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +     | 50      |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +     | 50      |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +     | 50      |
| Angiectasis                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2     | 1 2.0   |
| Basophilic Focus                             |   | X | X | X | X | X |   | X | X | X |   | X | X |   | X | X |   | X | X | X |   | X | X | X | X     | 28      |
| Clear Cell Focus                             |   |   |   | X | X |   | X | X | X | X |   | X | X |   | X | X |   | X | X | X |   | X | X | X | X     | 30      |
| Congestion                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2     | 1 2.0   |
| Degeneration, Cystic                         |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 4 1.3   |
| Eosinophilic Focus                           |   |   |   | X |   |   |   |   |   |   | X | X |   | X | X |   | X |   |   |   |   |   |   | X | 11    |         |
| Fatty Change, Focal                          |   |   |   | 1 |   |   |   |   | 1 |   |   |   |   |   |   | 1 |   |   |   |   |   |   | 1 |   | 6 1.3 |         |
| Fatty Change, Diffuse                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 1 2.0   |
| Hematopoietic Cell Proliferation             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 1 1.0   |
| Hemorrhage                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       | 1 2.0   |
| Hepatodiaphragmatic Nodule                   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | X |   | X |   |   |   |       | 8       |

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 + .. Tissue examined microscopically  
 X .. Lesion present  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>0 MG/KG               | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |   |   |    |     |     |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|---|---|----|-----|-----|
|  | 0337        | 0378  | 0429  | 0478  | 0527  | 0577  | 0627  | 0677  | 0727  | 0777  | 0827  | 0877  | 0927  | 0977  | 1027  | 1077  | 1127  | 1177  | 1227  | 1277  |          |   |   |    |     |     |
| ANIMAL ID                                      | 00026       | 00007 | 00008 | 00009 | 00010 | 00011 | 00012 | 00013 | 00014 | 00015 | 00016 | 00017 | 00018 | 00019 | 00020 | 00021 | 00022 | 00023 | 00024 | 00025 |          |   |   |    |     |     |
| Inflammation                                   |             | 1     | 1     | 1     | 1     | 1     |       | 2     | 2     | 1     | 1     | 1     |       | 1     | 1     | 1     |       | 1     | 1     | 2     | 1        | 1 | 1 | 1  | 40  | 1.1 |
| Mixed Cell Focus                               |             | X     |       |       |       |       |       | X     | X     | X     |       | X     |       |       | X     | X     | X     | X     |       |       |          |   |   |    | 18  |     |
| Bile Duct, Fibrosis                            |             |       | 1     | 1     | 1     |       | 1     | 1     | 1     |       | 1     | 1     |       |       | 1     |       |       | 1     |       |       |          |   | 1 | 1  | 21  | 1.0 |
| Bile Duct, Hyperplasia<br>Hepatocyte, Necrosis |             | 2     | 2     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 2     | 1     | 2     | 1     | 1     | 1     | 1     | 1     |          |   | 1 | 1  | 40  | 1.2 |
| Mesentery                                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |   |    | 7   |     |
| Fat, Necrosis                                  |             |       |       |       |       |       |       |       |       |       | 3     |       |       |       |       | 3     |       | 3     |       |       |          |   |   |    | 7   | 2.9 |
| Pancreas                                       | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | + | + | +  | 50  |     |
| Basophilic Focus                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |   |    | 1   | 2.0 |
| Cyst   |             |       |       |       |       |       |       |       |       | X     | X     |       |       |       |       |       |       |       |       |       |          |   |   |    | 2   |     |
| Infiltration Cellular, Mononuclear Cell        | 1           |       | 1     |       |       |       |       | 2     |       | 2     | 1     |       |       |       |       |       |       | 1     |       |       |          |   |   | 16 | 1.3 |     |
| Acinus, Atrophy                                | 1           | 2     | 2     | 3     |       |       |       | 2     | 1     |       | 2     |       |       |       | 1     | 2     | 2     | 1     |       |       |          | 2 |   | 21 | 1.8 |     |
| Acinus, Hyperplasia                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |   | 2  | 2.0 |     |
| Salivary Glands                                | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | + | + | +  | 50  |     |
| Stomach, Forestomach                           | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | + | + | +  | 50  |     |
| Erosion  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |   | 1  | 1   | 1.0 |
| Inflammation                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   | 2 |    | 1   | 2.0 |
| Stomach, Glandular                             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | + | + | +  | 50  |     |
| Erosion  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |   |    | 1   | 1.0 |
| Tooth  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |   |    | 1   |     |
| Peridontal Tissue, Inflammation                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |   | 3  | 1   | 3.0 |

**CARDIOVASCULAR SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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| DAY ON TEST                | FISCHER 344 RATS MALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |   |   |    |    |     |     |
|----------------------------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|----|----|-----|-----|
|                            | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          | 0 |   |   |    |    |     |     |
| ANIMAL ID                  | 3                     | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6        | 7 |   |   |    |    |     |     |
|                            | 3                     | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 9 | 2 | 2 | 2 | 1 | 2 | 6 | 2 | 8 | 2        | 6 | 2 |   |    |    |     |     |
| 0 MG/KG                    | 7                     | 8 | 9 | 7 | 8 | 7 | 9 | 7 | 8 | 9 | 9 | 8 | 9 | 8 | 9 | 9 | 2 | 8 | 5 | 8 | 8        | 0 | 9 | 4 | 7  |    |     |     |
|                            | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 | 0 | 0  |    |     |     |
|                            | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 | 0 | 0  |    |     |     |
|                            | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 | 0 | 0  |    |     |     |
|                            | 2                     | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4        | 4 | 4 | 5 | 5  |    |     |     |
|                            | 6                     | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6        | 7 | 8 | 9 | 0  |    |     |     |
| Blood Vessel               | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | + | + | 50 |    |     |     |
| Heart                      | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | + | + | 50 |    |     |     |
| Cardiomyopathy             | 1                     | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 |   | 1 | 1 | 2 |   | 2 | 1 | 1 | 2        | 2 | 2 | 1 | 1  | 46 | 1.4 |     |
| Pigmentation               | 1                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |    | 1  | 1.0 |     |
| <b>ENDOCRINE SYSTEM</b>    |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |    |    |     |     |
| Adrenal Cortex             | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | + | + | +  | 50 |     |     |
| Angiectasis                |                       |   |   |   | 2 |   |   |   |   |   | 1 | 2 |   | 1 |   | 1 |   |   |   |   |          |   |   | 1 |    |    | 13  | 1.4 |
| Hyperplasia                |                       |   |   |   | 1 |   | 2 | 1 | 1 |   |   |   |   | 1 |   | 2 |   |   |   | 2 | 1        |   |   |   | 1  |    | 17  | 1.4 |
| Hypertrophy                |                       |   |   |   |   | 2 | 1 |   |   |   |   |   |   |   |   |   |   |   | 2 | 2 |          |   |   |   |    |    | 9   | 1.4 |
| Vacuolization Cytoplasmic  | 1                     |   | 3 | 1 |   | 2 | 1 |   |   |   |   | 2 | 1 | 2 | 2 | 1 | 2 |   | 1 | 1 | 2        | 1 | 1 | 1 | 1  |    | 31  | 1.5 |
| Adrenal Medulla            | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | + | + | +  | 50 |     |     |
| Hyperplasia                |                       |   |   |   |   |   |   |   |   |   | 1 |   | 1 | 1 |   | 1 |   | 1 | 2 |   |          | 3 |   |   | 1  | 1  | 18  | 1.5 |
| Islets, Pancreatic         | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | + | + | +  | 50 |     |     |
| Hyperplasia                |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |    |    | 1   | 1.0 |
| Parathyroid Gland          | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | +        | + | + | + | +  | 49 |     |     |
| Hyperplasia, Focal         |                       |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |          |   |   |   |    |    | 2   | 2.0 |
| Hyperplasia, Diffuse       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |    |    | 1   | 2.0 |
| Pituitary Gland            | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | + | + | +  | 50 |     |     |
| Cyst                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |    |    | 1   |     |
| Pars Distalis, Hemorrhage  |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   | 3 |    |    | 1   | 3.0 |
| Pars Distalis, Hyperplasia |                       |   | 3 | 1 |   | 4 |   |   |   |   |   |   | 2 |   | 3 |   | 3 |   |   |   |          |   |   |   |    |    | 15  | 2.3 |
| Thyroid Gland              | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | + | + | + | +  | 50 |     |     |

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>0 MG/KG | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|                                  | 03737       | 03738 | 03739 | 03740 | 03741 | 03742 | 03743 | 03744 | 03745 | 03746 | 03747 | 03748 | 03749 | 03750 | 03751 | 03752 | 03753 | 03754 | 03755 | 03756 | 03757 | 03758 | 03759 | 03760 |          |
| ANIMAL ID                        | 00026       | 00027 | 00028 | 00029 | 00030 | 00031 | 00032 | 00033 | 00034 | 00035 | 00036 | 00037 | 00038 | 00039 | 00040 | 00041 | 00042 | 00043 | 00044 | 00045 | 00046 | 00047 | 00048 | 00049 |          |
| C-cell, Hyperplasia              |             |       |       |       |       | 3     |       |       | 1     |       | 1     | 3     |       |       |       | 1     |       | 1     | 1     |       |       |       | 2     |       | 14 1.7   |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |        |        |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|--------|
| Coagulating Gland<br>Inflammation<br>Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 1 4.0  | 1 3.0  |
| Epididymis   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |        |
| Preputial Gland<br>Hyperplasia<br>Inflammation               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 3.0  | 49 1.5 |
| Prostate<br>Inflammation<br>Epithelium, Hyperplasia          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 23 1.8 | 2 1.0  |
| Seminal Vesicle<br>Inflammation                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 3.0  |        |
| Testes<br>Mineralization<br>Interstitial Cell, Hyperplasia   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 1.0  | 16 1.2 |

**HEMATOPOIETIC SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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 M .. Missing tissue  
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TDMS No. 20107 - 03  
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 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
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| FISCHER 344 RATS MALE<br>0 MG/KG        | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |        |        |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|--------|--------|
|   | 037         | 078   | 079   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   |          | 077   | 077   |       |        |        |
| ANIMAL ID                               | 00026       | 00027 | 00028 | 00029 | 00030 | 00031 | 00032 | 00033 | 00034 | 00035 | 00036 | 00037 | 00038 | 00039 | 00040 | 00041 | 00042 | 00043 | 00044 | 00045 | 00046    | 00047 | 00048 | 00049 | 00050  |        |
| Bone Marrow                             | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| Hyperplasia                             |             |       | 3     |       |       |       | 2     |       |       | 3     |       | 2     | 3     |       |       | 1     | 3     |       | 3     | 2     |          |       |       |       | 17 2.5 |        |
| Necrosis                                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 2     |       | 1 2.0  |        |
| Lymph Node                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 4      |        |
| Deep Cervical, Hyperplasia, Plasma Cell |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0  |        |
| Lymph Node, Mandibular                  | M           | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M        | M     | M     | M     | 0      |        |
| Lymph Node, Mesenteric                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| Hyperplasia, Lymphoid                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 2 2.0  |        |
| Infiltration Cellular, Histiocyte       |             |       | 1     |       |       | 1     |       | 1     |       | 1     |       | 1     |       | 1     |       |       |       | 2     | 2     | 1     | 1        |       | 1     | 2     | 21 1.1 |        |
| Spleen                                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| Congestion                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0  |        |
| Hematopoietic Cell Proliferation        |             | 1     | 1     | 1     |       | 1     |       | 1     | 1     | 1     | 1     |       | 1     | 1     |       |       | 1     |       | 1     | 1     |          | 1     | 1     | 1     | 34 1.0 |        |
| Pigmentation                            |             | 1     |       | 1     | 1     | 1     |       | 1     | 1     | 1     | 1     |       | 1     | 1     |       |       | 1     |       | 1     | 1     | 2        | 1     | 2     | 1     | 36 1.1 |        |
| Capsule, Fibrosis                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 1 2.0  |        |
| Thymus                                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| Atrophy                                 | 3           | 2     | 2     | 2     | 3     | 2     | 3     | 3     | 2     | 3     | 2     |       |       | 2     |       | 3     | 3     | 3     | 4     | 4     | 2        | 3     | 3     | 3     | 2      | 44 2.8 |
| <b>INTEGUMENTARY SYSTEM</b>             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |        |        |
| Mammary Gland                           | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| Skin                                    | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50     |        |
| <b>MUSCULOSKELETAL SYSTEM</b>           |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |        |        |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST   | FISCHER 344 RATS MALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |      |      |      |       |       |
|---|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|------|------|------|-------|-------|
|   | 03737                 | 07228 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 | 07728 |          | 07728 |      |      |      |       |       |
| ANIMAL ID   | 0026                  | 0027  | 0028  | 0029  | 0030  | 0031  | 0032  | 0033  | 0034  | 0035  | 0036  | 0037  | 0038  | 0039  | 0040  | 0041  | 0042  | 0043  | 0044  | 0045  | 0046     | 0047  | 0048 | 0049 | 0050 |       |       |
| Bone  | +                     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +    | +    | +    | 50    |       |
| <b>NERVOUS SYSTEM</b>                                   |                       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |      |      |      |       |       |
| Brain   | +                     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +    | +    | +    | 50    |       |
| Demyelination   |                       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |      |      | 2    | 1 2.0 |       |
| Hemorrhage  |                       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |      |      | 2    | 1 2.0 |       |
| <b>RESPIRATORY SYSTEM</b>                               |                       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |      |      |      |       |       |
| Lung  | +                     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +    | +    | +    | 50    |       |
| Inflammation  | 2                     |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |      |      |      | 2     | 2 1.5 |
| Alveolar Epithelium, Hyperplasia                        | 2                     |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       | 4     | 3     |       |       |       |          |       |      |      |      | 8     | 2.8   |
| Alveolus, Infiltration Cellular, Histiocyte             |                       |       |       |       |       | 1     |       | 1     | 1     |       |       | 2     |       |       |       |       |       | 1     |       |       |          |       |      |      |      | 14    | 1.1   |
| Nose  | +                     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +    | +    | +    | 50    |       |
| Foreign Body  |                       |       | X     |       |       |       | X     |       |       |       | X     | X     | X     | X     |       |       | X     | X     |       |       |          |       |      |      |      | 13    |       |
| Inflammation  |                       | 1     | 2     |       |       | 1     | 1     |       |       |       | 1     | 2     |       | 1     | 1     | 1     |       | 3     | 2     |       | 1        | 2     | 1    | 1    | 2    | 35    | 1.4   |
| Glands, Respiratory Epithelium, Dilatation              |                       |       |       |       | 1     |       |       |       | 1     |       |       |       |       |       |       |       |       | 1     |       |       |          |       | 1    |      |      | 13    | 1.0   |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory |                       |       | 1     |       | 1     |       |       |       | 1     | 1     | 1     |       | 1     |       | 1     |       |       | 1     | 1     | 1     |          | 1     | 1    | 1    |      | 29    | 1.0   |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     |                       | 2     | 1     | 1     | 2     | 2     | 2     | 1     | 3     | 2     | 2     | 3     | 2     | 3     | 3     | 2     | 2     | 2     | 1     | 2     | 2        | 3     | 1    | 2    | 3    | 49    | 2.1   |
| Olfactory Epithelium, Metaplasia, Respiratory           |                       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       | 1     |       | 1     |       |          |       |      |      |      | 4     | 1.0   |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   |                       | 2     |       |       | 1     | 2     | 1     |       | 2     | 1     | 2     | 3     | 2     | 2     | 2     | 1     | 1     | 2     |       | 1     | 1        | 1     |      | 2    | 3    | 42    | 1.5   |
| Respiratory Epithelium, Hyperplasia                     |                       |       |       |       |       |       | 1     |       |       |       |       | 1     |       | 1     |       |       |       | 2     | 1     |       | 1        | 1     |      | 1    | 1    | 15    | 1.2   |
| Transitional Epithelium, Hyperplasia                    |                       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |          |       |      |      |      | 1     | 2.0   |
| Trachea   | +                     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +    | +    | +    | 50    |       |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
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 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS MALE |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |        |
|-------------|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|
|             | 03737                 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 | 077228 |          | 077228 |
| 0           | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0        |        |
| 3           | 7                     | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7      | 7        |        |
| 3           | 2                     | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2        |        |
| 7           | 8                     | 9      | 7      | 8      | 7      | 9      | 7      | 8      | 9      | 7      | 8      | 9      | 7      | 8      | 9      | 7      | 8      | 9      | 7      | 8      | 9      | 7      | 8      | 9      | 7        |        |
| 0           | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0        |        |
| 0           | 0                     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0        |        |
| 2           | 2                     | 2      | 2      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 3      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 4      | 5        |        |
| 6           | 7                     | 8      | 9      | 0      | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 0      | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 0      |          |        |

Inflammation 1 1 3 1.3

**SPECIAL SENSES SYSTEM**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |     |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|-----|
| Eye                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |   |     |
| Cornea, Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 2 | 1 | 2.0 |
| Harderian Gland      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |   |     |
| Inflammation         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 1 | 3 | 1.3 |
| Zymbal's Gland       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 49 |   |   |     |
| Hyperplasia          | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | 4 | 1 | 4.0 |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |    |     |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|----|-----|--|
| Kidney                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |    |     |  |
| Accumulation, Hyaline Droplet                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  |   | 2  | 2.0 |  |
| Mineralization                               |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  |   | 44 | 1.0 |  |
| Nephropathy                                  | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 4  |   | 49 | 1.4 |  |
| Pigmentation                                 | 1 |   |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   | 1 |   | 1 | 1 | 1 |   | 1 |   | 1 | 1 | 1 | 1 |    |   | 24 | 1.2 |  |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   | 1  | 2.0 |  |
| Urinary Bladder                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |    |     |  |
|  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | + |    |     |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>6 MG/KG | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | males<br>(cont...) |
|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
|                                  | 0729        | 0729 | 0728 | 0728 | 0729 | 0721 | 0724 | 0722 | 0722 | 0727 | 0727 | 0728 | 0728 | 0729 | 0729 | 0727 | 0727 | 0728 | 0728 | 0722 | 0725 | 0725 | 0727 | 0727 | 0728 |           |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00051     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00052     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00053     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00054     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00055     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00056     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00057     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00058     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00059     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00060     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00061     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00062     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00063     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00064     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00065     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00066     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00067     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00068     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00069     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00070     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00071     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00072     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00073     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00074     |                    |
|                                  | 0           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 00075     |                    |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon<br>Parasite Metazoan  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus                             |   |   | X |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| Clear Cell Focus                             | X | X | X | X |   |   |   | X | X | X | X | X | X | X | X | X | X | X | X | X |   |   |   |   | X |
| Degeneration, Cystic                         | 1 |   |   | 1 |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   | 2 | 2 |   |
| Eosinophilic Focus                           |   |   |   | X |   |   |   | X |   |   |   | X | X | X | X | X | X | X | X | X |   |   |   |   | X |
| Fatty Change, Focal                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Fatty Change, Diffuse                        |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 | 1 |   |   |
| Hepatodiaphragmatic Nodule                   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation                                 | 1 | 1 | 1 | 1 | 1 | 1 |   | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |
| Mixed Cell Focus                             | X | X |   | X | X |   |   |   | X | X | X |   |   | X | X |   |   |   |   | X |   |   |   |   |   |
| Vacuolization Cytoplasmic                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |
| Bile Duct, Cyst                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>6 MG/KG   | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | males<br>(cont...) |   |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |                    |   |
|  | 7           | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 6 | 7 |                    | 7 |
|  | 2           | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |                    |   |
|  | 9           | 9 | 8 | 8 | 9 | 1 | 4 | 2 | 9 | 7 | 7 | 8 | 7 | 8 | 9 | 9 | 7 | 7 | 7 | 7 | 2 | 5 | 9 | 9 | 2                  | 8 |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  |   |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  |   |
|  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  |   |
|  | 5           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |                    |   |
|  | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5                  |   |
| Bile Duct, Fibrosis  | 1           | 1 | 1 |   | 1 |   |   | 2 |   |   | 1 | 1 | 1 |   | 1 | 1 | 1 |   |   | 1 |   |   | 1 | 1 |                    |   |
| Bile Duct, Hyperplasia   | 2           | 2 | 2 | 1 | 1 |   | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |   | 1 | 1 |   | 1 | 1 | 1 | 1                  |   |
| Mesentery<br>Fat, Necrosis   | +           |   |   |   |   |   |   | + |   | + |   |   |   |   |   | + |   |   |   |   |   | + |   |   |                    |   |
|  | 3           |   |   |   |   |   |   | 3 |   | 3 |   |   |   |   |   | 3 |   |   |   |   |   | 3 |   |   |                    |   |
| Pancreas<br>Cyst<br>Hyperplasia<br>Infiltration Cellular, Mononuclear Cell<br>Acinus, Atrophy<br>Acinus, Hyperplasia | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                    |   |
|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |
|  | 1           |   | 1 |   |   | 2 |   |   |   |   |   |   | 2 |   | 1 |   | 1 |   |   |   | 1 |   |   |   |                    |   |
|  |             | 3 | 2 | 2 |   | 1 |   | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 1 | 2 | 3 |   |   |   |   |   |   | 2 |                    |   |
| Salivary Glands<br>Infiltration Cellular   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                    |   |
| Stomach, Forestomach<br>Edema<br>Hyperplasia, Squamous<br>Inflammation<br>Ulcer                                      | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                    |   |
|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |                    |   |
|  |             |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |                    |   |
|  |             |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |                    |   |
| Stomach, Glandular<br>Inflammation<br>Ulcer  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |                    |   |
| Tongue   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |
| Tooth<br>Peridontal Tissue, Inflammation   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |
|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |
|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | + |   |                    |   |
|  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 1 |   |                    |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

|                       |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |
|-----------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
|                       |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                    |
| DAY ON TEST           |  | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 |                    |
| FISCHER 344 RATS MALE |  | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 9 | 9 | 2 | 2 | 2 |                    |
| 6 MG/KG               |  | 9 | 9 | 8 | 8 | 9 | 1 | 4 | 9 | 7 | 7 | 8 | 7 | 8 | 9 | 9 | 7 | 7 | 7 | 8 | 2 | 5 | 5 | 7 | 8 | 8 |                    |
| ANIMAL ID             |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males<br>(cont...) |
|                       |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                    |
|                       |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                    |
|                       |  | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |                    |
|                       |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |                    |

CARDIOVASCULAR SYSTEM

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy       | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Artery, Inflammation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

ENDOCRINE SYSTEM

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                       |   | 1 |   | 1 | 1 |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 1 |   |   |   |   | 2 |
| Hyperplasia                       | 2 | 2 | 2 | 1 |   |   |   | 2 |   |   | 1 | 1 | 2 | 2 |   | 2 |   |   |   | 1 |   |   | 2 | 2 | 2 |
| Hypertrophy                       |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |
| Vacuolization Cytoplasmic         | 1 |   | 1 | 1 |   | 1 | 1 | 2 |   | 1 | 1 | 1 | 2 |   | 2 |   |   |   | 1 |   |   | 1 | 1 | 1 | 1 |
| Adrenal Medulla                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                       |   |   | 2 | 3 |   |   |   | 4 |   |   |   |   | 2 |   |   |   | 1 |   | 1 | 2 | 1 |   | 3 | 1 | 2 |
| Infiltration Cellular, Lymphocyte |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Islets, Pancreatic                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                       |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   | 1 |   |   |   |   |   |   |   |   |   |
| Parathyroid Gland                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst                              |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |
| Pituitary Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cyst                              |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Pars Distalis, Hyperplasia        | 3 | 1 | 2 |   |   |   |   |   |   | 1 | 1 | 3 | 3 |   | 3 | 2 |   |   |   | 3 | 3 |   | 1 |   | 2 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
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 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

|                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>FISCHER 344 RATS MALE</b> | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                              |             | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| <b>6 MG/KG</b>               | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                              |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                              |             | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|                              |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |   |   |   |   |   |   |   |   |   |   |   |

**males (cont...)**

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Thyroid Gland       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| C-cell, Hyperplasia | 2 | 1 |   | 1 | 1 | 1 |   |   |   | 2 |   |   | 2 | 1 |   | 1 | 1 | 2 |   | 3 | 1 |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Follicle, Cyst      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Epididymis              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Atypia Cellular         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation            |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Preputial Gland         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Inflammation            | 1 | 3 | 2 | 1 | 3 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Prostate                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Inflammation            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Epithelium, Hyperplasia |   |   | 2 | 2 |   | 1 | 2 | 2 |   | 1 |   |   |   |   | 2 |   | 2 |   | 3 | 1 |   |   |   | 1 | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Seminal Vesicle         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Inflammation            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Testes                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Cyst                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

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

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>6 MG/KG | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | males<br>(cont...)    |                       |                       |                       |                       |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                  | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>6<br>2<br>1      | 0<br>6<br>2<br>4      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>7      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>7      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>7      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>7      | 0<br>7<br>2<br>7      | 0<br>5<br>1<br>2      | 0<br>6<br>9<br>5      | 0<br>6<br>9<br>5      |                       | 0<br>7<br>2<br>7      | 0<br>7<br>2<br>8      |                       |                       |
| ANIMAL ID                        | 0<br>0<br>0<br>5<br>1 | 0<br>0<br>0<br>5<br>2 | 0<br>0<br>0<br>5<br>3 | 0<br>0<br>0<br>5<br>4 | 0<br>0<br>0<br>5<br>5 | 0<br>0<br>0<br>5<br>6 | 0<br>0<br>0<br>5<br>7 | 0<br>0<br>0<br>5<br>8 | 0<br>0<br>0<br>5<br>9 | 0<br>0<br>0<br>6<br>0 | 0<br>0<br>0<br>6<br>1 | 0<br>0<br>0<br>6<br>2 | 0<br>0<br>0<br>6<br>3 | 0<br>0<br>0<br>6<br>4 | 0<br>0<br>0<br>6<br>5 | 0<br>0<br>0<br>6<br>6 | 0<br>0<br>0<br>6<br>7 | 0<br>0<br>0<br>6<br>8 | 0<br>0<br>0<br>6<br>9 | 0<br>0<br>0<br>7<br>0 | 0<br>0<br>0<br>7<br>1 | 0<br>0<br>0<br>7<br>2 | 0<br>0<br>0<br>7<br>3 | 0<br>0<br>0<br>7<br>4 | 0<br>0<br>0<br>7<br>5 |
| Interstitial Cell, Hyperplasia   |                       |                       |                       |                       | 2                     | 2                     |                       | 1                     |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       | 2                     | 1                     |                       |

**HEMATOPOIETIC SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow<br>Hyperplasia                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
|  | 3 |   |   |   |   |   | 3 |   |   |   |   |   |   | 2 |   |   | 2 |   | 2 |   | 3 |   |   |   |   |
| Lymph Node<br>Mediastinal, Ectasia                         |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Hemorrhage                                    |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Hyperplasia, Plasma Cell                      |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular                                     | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |   |
| Lymph Node, Mesenteric<br>Atrophy                          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Hyperplasia, Lymphoid<br>Infiltration Cellular, Histiocyte | 1 | 1 |   |   | 1 | 2 |   |   |   |   |   | 1 | 1 | 1 |   |   |   | 2 | 1 |   | 2 | 1 | 1 |   |   |
| Spleen<br>Hematopoietic Cell Proliferation                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Pigmentation   | 1 | 1 |   | 1 | 1 | 1 |   |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 1 |   |
| Capsule, Hemorrhage  | 1 | 1 | 2 | 2 | 2 | 1 |   | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 2 | 2 | 2 | 1 | 1 | 1 |   |
| Capsule, Hypertrophy, Mesothelium                          |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |
| Lymphoid Follicle, Atrophy                                 |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |
| Thymus<br>Atrophy  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
|  | 2 | 2 | 3 | 2 | 2 | 3 | 4 | 2 | 3 | 3 | 4 | 3 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 3 | 2 | 3 | 4 | 3 | 3 |

**INTEGUMENTARY SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

| DAY ON TEST           |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males<br>(cont...) |
|-----------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
| FISCHER 344 RATS MALE |  | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 6 | 7 | 7 |   |                    |
| 6 MG/KG               |  | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 9 | 9 | 2 | 2 |   |                    |
| ANIMAL ID             |  | 9 | 9 | 8 | 8 | 9 | 1 | 4 | 9 | 7 | 7 | 8 | 7 | 8 | 9 | 9 | 7 | 7 | 7 | 8 | 2 | 5 | 5 | 7 | 8 |                    |
|                       |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                    |
|                       |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                    |
|                       |  | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |   |                    |
|                       |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5                  |

Mammary Gland

+ +

Skin

+ +

MUSCULOSKELETAL SYSTEM

Bone

+ +

NERVOUS SYSTEM

Brain

+ +

Spinal Cord

RESPIRATORY SYSTEM

Lung

+ +

Foreign Body

Inflammation

Alveolar Epithelium, Hyperplasia

Alveolus, Infiltration Cellular, Histiocyte

2 3 3 1 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Nose

Foreign Body

Inflammation

Glands, Olfactory Epithelium, Hyperplasia

Glands, Respiratory Epithelium, Dilatation

Glands, Respiratory Epithelium, Hyperplasia

Glands, Respiratory Epithelium, Metaplasia, Respiratory

Glands, Transitional Epithelium, Hyperplasia

X X X 1  
 1 1 1 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
 1 1 1 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  
 1  
 1

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>6 MG/KG                      | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   | ANIMAL ID | males<br>(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|-----------|--------------------|
|   | 0729        | 0729 | 0728 | 0728 | 0729 | 0726 | 0726 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0725 | 0726 | 0726 | 0727 | 0727 |   |           |                    |
| Olfactory Epithelium, Accumulation, Hyaline Droplet   | 2           | 2    | 2    | 2    | 1    | 1    | 2    | 2    | 1    | 2    | 2    | 2    | 2    | 3    | 1    | 2    | 3    | 3    | 2    | 2    |      | 2    | 1    | 2    |   |           |                    |
| Olfactory Epithelium, Hyperplasia, Basal Cell         |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   |           |                    |
| Olfactory Epithelium, Metaplasia, Respiratory         |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2 |           |                    |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 1           | 2    | 1    | 1    | 1    |      | 1    | 1    | 1    | 1    | 2    | 1    | 1    | 1    |      | 3    | 1    | 2    | 1    | 1    |      |      |      | 1    |   |           |                    |
| Respiratory Epithelium, Hyperplasia                   |             |      |      |      | 1    |      |      |      |      | 2    |      |      |      |      | 1    | 1    |      | 1    | 2    | 1    | 1    | 1    |      | 2    |   |           |                    |
| Squamous Epithelium, Cyst                             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |   |           |                    |
| Transitional Epithelium, Hyperplasia                  |             |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      | X    |      | 2    |   |           |                    |
| Trachea Inflammation                                  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |   |           |                    |
| <b>SPECIAL SENSES SYSTEM</b>                          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   |           |                    |
| Eye   | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |   |           |                    |
| Dysplasia   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   |           |                    |
| Inflammation  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |   |           |                    |
| Cornea, Hyperplasia                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |   |           |                    |
| Cornea, Inflammation                                  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3    |   |           |                    |
| Lens, Degeneration                                    |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3    |   |           |                    |
| Retina, Atrophy                                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3    |   |           |                    |
| Harderian Gland                                       | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |   |           |                    |
| Infiltration Cellular, Lymphoid                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 3    |   |           |                    |
| Inflammation  | 1           |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      | 2    |   |           |                    |
| Zymbal's Gland  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |   |           |                    |

**URINARY SYSTEM**

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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
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 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST                                  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID |  | males<br>(cont...) |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|--------------------|
|  | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |           |  |                    |
| <b>FISCHER 344 RATS MALE</b>                 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |           |  |                    |
| <b>6 MG/KG</b>                               | 9 | 9 | 8 | 8 | 9 | 1 | 4 | 9 | 7 | 7 | 8 | 7 | 8 | 9 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |           |  |                    |
|  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |  |                    |
|  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |  |                    |
|  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |  |                    |
|  | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |           |  |                    |
|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |   |           |  |                    |
| Kidney                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |           |  |                    |
| Accumulation, Hyaline Droplet                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1         |  |                    |
| Mineralization                               | 1 | 1 |   | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 |   | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |           |  |                    |
| Nephropathy                                  | 1 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 4 | 2 | 3 | 2 | 1 |   |   |   |   |           |  |                    |
| Pigmentation                                 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   | 1 | 1 |   | 1 | 1 | 1 |   |   |   |   |           |  |                    |
| Papilla, Necrosis                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  |                    |
| Pelvis, Inflammation                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1         |  |                    |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1         |  |                    |
| Urinary Bladder                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |           |  |                    |
| Hemorrhage                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  |                    |
| Inflammation                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  |                    |
| Ulcer  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |  |                    |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
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 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>6 MG/KG | DAY ON TEST |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | * TOTALS |
|----------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
|                                  | 078         | 071 | 077 | 072 | 053 | 072 | 077 | 073 | 078 | 002 | 032 | 072 | 077 | 077 | 077 | 007 | 077 | 077 | 064 | 072 | 072 | 078 |          |
| ANIMAL ID                        | 000         | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 |          |
|                                  | 776         | 777 | 778 | 779 | 880 | 881 | 882 | 883 | 884 | 885 | 886 | 887 | 888 | 889 | 990 | 991 | 992 | 993 | 994 | 995 | 996 | 997 |          |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Large, Colon<br>Parasite Metazoan  | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | 50<br>2 |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | X | X | + | + | 50<br>5 |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Basophilic Focus                             |   |   |   |   |   |   |   |   |   |   | X |   | X |   |   |   |   |   |   |   | X |   | 6       |
| Clear Cell Focus                             | X |   | X | X |   | X |   |   | X | X | X | X | X |   | X | X | X | X |   | X | X | X | 36      |
| Degeneration, Cystic                         | 3 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   | 1 | 10 1.4  |
| Eosinophilic Focus                           |   | X |   |   | X |   |   |   | X | X |   |   |   |   |   | X | X | X |   | X |   | X | 21      |
| Fatty Change, Focal                          |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1.0   |
| Fatty Change, Diffuse                        |   | 1 |   |   |   |   | 2 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   | 8 1.1   |
| Hepatodiaphragmatic Nodule                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Inflammation                                 | 1 | 1 | 1 | 1 |   | 2 | 1 | 2 |   | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 46 1.1  |
| Mixed Cell Focus                             | X |   | X | X |   |   |   |   |   | X |   |   |   |   | X |   | X |   |   |   |   | X | 17      |
| Vacuolization Cytoplasmic                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0   |
| Bile Duct, Cyst                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 1       |

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>6 MG/KG         | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |   |     |    |     |     |  |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|---|-----|----|-----|-----|--|
|  | 078         | 071   | 077   | 072   | 073   | 072   | 071   | 078   | 072   | 074   | 071   | 077   | 077   | 077   | 077   | 076   | 077   | 077   | 075   | 077   |          |   | 077 |    |     |     |  |
| ANIMAL ID                                | 00076       | 00077 | 00078 | 00079 | 00080 | 00081 | 00082 | 00083 | 00084 | 00085 | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096    |   |     |    |     |     |  |
| Bile Duct, Fibrosis                      |             | 1     | 1     | 1     |       | 1     | 1     |       |       |       |       |       |       | 1     | 1     |       | 1     | 1     |       | 1     | 1        | 1 | 1   | 27 | 1.0 |     |  |
| Bile Duct, Hyperplasia                   | 2           | 1     | 2     | 2     |       | 1     | 1     | 2     |       | 1     |       | 2     |       | 2     | 1     | 1     |       | 2     | 2     | 1     | 2        | 1 | 2   | 2  | 42  | 1.5 |  |
| Mesentery<br>Fat, Necrosis               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |     | 5  | 5   | 3.0 |  |
| Pancreas                                 | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | + | +   | 50 |     |     |  |
| Cyst                                     |             |       | X     |       |       | X     |       |       |       |       |       |       |       |       |       |       |       | X     |       | X     |          |   |     | 4  |     |     |  |
| Hyperplasia                              |             | 3     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |     | 1  | 3.0 |     |  |
| Infiltration Cellular, Mononuclear Cell  |             |       | 1     |       |       | 1     |       | 1     |       |       |       |       | 2     |       |       | 1     |       |       |       |       |          |   | 2   | 14 | 1.3 |     |  |
| Acinus, Atrophy                          |             | 2     |       |       |       |       |       |       |       |       |       | 2     | 2     |       |       |       |       | 1     |       |       |          |   | 3   | 20 | 2.0 |     |  |
| Acinus, Hyperplasia                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |          |   | 3   | 2  | 2.5 |     |  |
| Salivary Glands<br>Infiltration Cellular | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | + | 50  | 1  | 1.0 |     |  |
| Stomach, Forestomach<br>Edema            | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | + | 50  | 1  | 2.0 |     |  |
| Hyperplasia, Squamous                    |             | 2     |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       | 2     |       |       |          |   |     | 3  | 1.7 |     |  |
| Inflammation                             |             | 1     |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       | 2     |       |       |          |   |     | 5  | 1.6 |     |  |
| Ulcer                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |     | 2  | 2.0 |     |  |
| Stomach, Glandular<br>Inflammation       | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | + | 50  | 1  | 2.0 |     |  |
| Ulcer                                    |             | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |     | 1  | 2.0 |     |  |
| Tongue                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | + |     | 1  |     |     |  |
| Tooth<br>Peridontal Tissue, Inflammation |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |   |     | 2  | 2   | 2.0 |  |

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>6 MG/KG | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    | * TOTALS |
|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----------|
|                                  | 078         | 071  | 077  | 072  | 073  | 072  | 071  | 078  | 072  | 074  | 071  | 078  | 077  | 077  | 077  | 076  | 077  | 077  | 075  | 077  | 077  | 072  | 072  |    |          |
| ANIMAL ID                        | 0076        | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 0070 | 50 |          |

**CARDIOVASCULAR SYSTEM**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Blood Vessel         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Heart                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Cardiomyopathy       | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 50 | 1.3 |
| Artery, Inflammation |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 1  | 2.0 |

**ENDOCRINE SYSTEM**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Adrenal Cortex                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Angiectasis                       |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 1 |   |   | 2 | 9  | 1.2 |
| Hyperplasia                       |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 2 | 1 | 1 | 1 |   | 2 |   | 21 | 1.6 |
| Hypertrophy                       | 1 |   |   |   | 2 |   |   |   |   |   |   |   | 2 |   |   |   |   |   | 1 |   |   |   |   | 6  | 1.5 |
| Vacuolization Cytoplasmic         |   | 2 |   | 1 | 2 | 1 | 1 |   |   | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 |   |   |   | 1 |   | 31 | 1.2 |
| Adrenal Medulla                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Hyperplasia                       | 1 |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   | 1 |   | 15 | 1.9 |
| Infiltration Cellular, Lymphocyte |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 3.0 |
| Islets, Pancreatic                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Hyperplasia                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  | 2.0 |
| Parathyroid Gland                 | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |     |
| Cyst                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |     |
| Pituitary Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |     |
| Angiectasis                       |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  | 2.0 |
| Cyst                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |     |
| Pars Distalis, Hyperplasia        |   |   | 2 |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   | 3 | 2 | 18 | 2.2 |

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 N,N-Dimethyl-p-toluidine  
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Date Report Requested: 02/28/2011  
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|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|
|                                  | 078         | 078  | 077  | 077  | 057  | 077  | 077  | 077  | 003  | 077  | 077  | 077  | 077  | 077  | 077  | 067  | 077  | 077  | 077  | 057  |          | 077  | 077  | 077  |
| ANIMAL ID                        | 0076        | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096     | 0097 | 0098 | 0099 |

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Thyroid Gland       | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49     |
| C-cell, Hyperplasia | 2 |   |   |   |   | 2 |   |   |   |   |   | 1 |   |   |   | 1 |   | 1 | 1 |   |   |   |   |   | 20 1.5 |
| Follicle, Cyst      |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Coagulating Gland       | + |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |
| Inflammation            | 4 |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 3.0  |
| Epithelium, Hyperplasia | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Epididymis              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Atypia Cellular         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0  |
| Inflammation            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0  |
| Preputial Gland         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Inflammation            | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 |   | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 49 1.6 |
| Prostate                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Inflammation            | 3 | 4 |   |   |   | 1 | 3 | 3 |   |   | 1 | 1 | 3 | 2 | 2 | 2 | 3 |   | 3 |   | 2 |   | 1 |   | 28 2.0 |
| Epithelium, Hyperplasia |   | 3 |   |   |   | 1 |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 1 |   |   |   | 1 | 6 1.3  |
| Seminal Vesicle         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Inflammation            |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Epithelium, Hyperplasia |   | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 4.0  |
| Testes                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Cyst                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |

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 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>6 MG/KG                           | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS      |                               |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|-------------------------------|
|  | 078         | 071   | 077   | 077   | 053   | 072   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   | 077   |               |                               |
| ANIMAL ID  | 00076       | 00077 | 00078 | 00079 | 00080 | 00081 | 00082 | 00083 | 00084 | 00085 | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096 | 00097 | 00098 | 00099 |               |                               |
| Interstitial Cell, Hyperplasia                             | 2           |       | 2     |       | 1     |       | 2     |       |       | 1     |       | 1     | 2     |       |       |       |       | 1     |       |       |       | 1     |       |       | <b>16 1.4</b> |                               |
| <b>HEMATOPOIETIC SYSTEM</b>                                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               |                               |
| Bone Marrow<br>Hyperplasia                                 | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | <b>50</b>     | <b>13 2.5</b>                 |
| Lymph Node<br>Mediastinal, Ectasia                         |             |       |       | +     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | +     |       |       | <b>3</b>      | <b>2 2.0</b>                  |
| Mediastinal, Hemorrhage                                    |             |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               | <b>1 3.0</b>                  |
| Mediastinal, Hyperplasia, Plasma Cell                      |             |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               | <b>1 2.0</b>                  |
| Lymph Node, Mandibular                                     | M           | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | M     | <b>0</b>      |                               |
| Lymph Node, Mesenteric<br>Atrophy                          | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | <b>50</b>     | <b>1 2.0</b>                  |
| Hyperplasia, Lymphoid<br>Infiltration Cellular, Histiocyte |             |       |       | 1     |       |       | 2     |       | 1     |       | 1     |       | 2     | 2     |       | 2     |       |       |       | 4     |       | 2     | 1     | 1     |               | <b>1 4.0</b><br><b>23 1.4</b> |
| Spleen<br>Hematopoietic Cell Proliferation                 | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | <b>50</b>     | <b>44 1.1</b>                 |
| Pigmentation   | 1           | 1     | 1     | 1     | 1     | 1     | 4     | 3     | 1     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 2     | 2     |               | <b>48 1.7</b>                 |
| Capsule, Hemorrhage  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               | <b>1 3.0</b>                  |
| Capsule, Hypertrophy, Mesothelium                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |               | <b>1 1.0</b>                  |
| Lymphoid Follicle, Atrophy                                 |             |       | 2     |       |       |       |       | 3     |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |               | <b>5 2.2</b>                  |
| Thymus<br>Atrophy  | M           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | <b>48</b>     | <b>46 2.7</b>                 |

**INTEGUMENTARY SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
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|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|----------|--|--|
|   | 078         | 078  | 077  | 077  | 057  | 077  | 077  | 077  | 007  | 037  | 077  | 077  | 077  | 077  | 077  | 077  | 067  | 077  | 077  | 077  | 057  | 077  | 077  | 077    |          |  |  |
| ANIMAL ID   | 0076        | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | 0099   |          |  |  |
| Mammary Gland   | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +      | 50       |  |  |
| Skin  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +      | 50       |  |  |
| <b>MUSCULOSKELETAL SYSTEM</b>                           |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        |          |  |  |
| Bone  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +      | 50       |  |  |
| <b>NERVOUS SYSTEM</b>                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        |          |  |  |
| Brain   | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +      | 50       |  |  |
| Spinal Cord   |             | +    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        | 1        |  |  |
| <b>RESPIRATORY SYSTEM</b>                               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        |          |  |  |
| Lung  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +      | 50       |  |  |
| Foreign Body  |             |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        | 1        |  |  |
| Inflammation  |             |      | 2    |      | 2    | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        | 5 1.6    |  |  |
| Alveolar Epithelium, Hyperplasia                        |             |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |      | 2    | 2    |      |      | 2    |      |        | 9 2.3    |  |  |
| Alveolus, Infiltration Cellular, Histiocyte             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        | 2 1.0    |  |  |
| Nose  | +           | +    | +    | +    | A    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 49     |          |  |  |
| Foreign Body  | X           |      |      | X    |      |      |      | X    |      |      |      |      |      | X    | X    |      | X    | X    |      | X    | X    | X    | X    | 17     |          |  |  |
| Inflammation  | 3           | 1    | 3    | 3    |      |      | 2    | 2    |      | 1    | 2    | 3    | 3    | 2    | 1    | 1    | 2    | 1    | 3    | 1    | 1    | 2    | 1    | 40 1.6 |          |  |  |
| Glands, Olfactory Epithelium, Hyperplasia               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2 1.0  |          |  |  |
| Glands, Respiratory Epithelium, Dilatation              |             | 1    |      | 1    |      |      | 1    | 1    |      | 1    | 1    |      | 1    |      |      | 1    | 1    |      | 1    |      |      |      | 1    | 15 1.0 |          |  |  |
| Glands, Respiratory Epithelium, Hyperplasia             |             | 1    |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      | 8 1.1  |          |  |  |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory | 1           | 1    | 1    | 1    |      | 1    | 1    | 1    |      | 1    | 1    |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 39 1.0 |          |  |  |
| Glands, Transitional Epithelium, Hyperplasia            | 1           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1 1.0  |          |  |  |

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| FISCHER 344 RATS MALE<br>6 MG/KG                      | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |           |            |            |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----------|------------|------------|
|   | 078         | 071   | 077   | 077   | 057   | 077   | 077   | 077   | 000   | 037   | 077   | 077   | 077   | 077   | 077   | 077   | 066   | 077   | 077   | 077   | 057   | 077   | 077   | 077   |          |           |            |            |
| ANIMAL ID   | 00076       | 00077 | 00078 | 00079 | 00080 | 00081 | 00082 | 00083 | 00084 | 00085 | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096 | 00097 | 00098 | 00099 |          |           |            |            |
| Olfactory Epithelium, Accumulation, Hyaline Droplet   | 2           | 2     | 3     | 2     |       | 2     |       | 1     |       |       | 2     | 2     | 1     | 2     | 2     | 2     | 3     | 2     | 2     | 2     | 2     | 1     | 2     | 3     | 2        | <b>44</b> | <b>2.0</b> |            |
| Olfactory Epithelium, Hyperplasia, Basal Cell         |             |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | <b>1</b>  | <b>1.0</b> |            |
| Olfactory Epithelium, Metaplasia, Respiratory         |             |       | 2     | 2     |       |       |       |       |       |       |       | 1     | 1     |       |       |       | 2     | 1     | 1     |       |       |       |       |       |          | <b>9</b>  | <b>1.4</b> |            |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 1           | 1     | 1     |       |       | 1     |       | 1     |       |       |       | 1     |       | 1     | 1     |       |       |       | 1     | 1     |       | 1     | 2     | 2     | 1        | <b>35</b> | <b>1.2</b> |            |
| Respiratory Epithelium, Hyperplasia                   | 1           |       | 3     | 3     |       | 1     | 2     | 1     |       |       |       | 1     | 2     | 2     | 1     |       | 1     | 2     |       | 2     |       | 1     | 2     |       | 1        | <b>29</b> | <b>1.5</b> |            |
| Squamous Epithelium, Cyst                             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | <b>1</b>  |            |            |
| Transitional Epithelium, Hyperplasia                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | <b>1</b>  | <b>1.0</b> |            |
| Trachea Inflammation                                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | <b>50</b> |            |            |
|   |             |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | <b>1</b>  | <b>2.0</b> |            |
| <b>SPECIAL SENSES SYSTEM</b>                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |           |            |            |
| Eye   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +         | <b>50</b>  |            |
| Dysplasia   |             |       |       |       |       |       |       | X     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |           | <b>1</b>   |            |
| Inflammation  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |           | <b>1</b>   | <b>2.0</b> |
| Cornea, Hyperplasia                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |           | <b>1</b>   | <b>2.0</b> |
| Cornea, Inflammation                                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |           | <b>1</b>   | <b>3.0</b> |
| Lens, Degeneration                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |           | <b>1</b>   | <b>3.0</b> |
| Retina, Atrophy                                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |           | <b>1</b>   | <b>3.0</b> |
| Harderian Gland                                       | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +         | <b>50</b>  |            |
| Infiltration Cellular, Lymphoid                       |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |           | <b>1</b>   | <b>3.0</b> |
| Inflammation  | 1           |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 3         | <b>6</b>   | <b>1.5</b> |
| Zymbal's Gland  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +         | <b>50</b>  |            |

**URINARY SYSTEM**

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|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|----------|
|  | 078         | 071  | 077  | 072  | 073  | 072  | 071  | 078  | 072  | 074  | 071  | 078  | 077  | 077  | 077  | 076  | 077  | 077  | 075  | 077  | 077  | 077  | 077  |        |          |
| ANIMAL ID                                    | 0076        | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096 | 0097 | 0098 | 0099   |          |
| Kidney                                       | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50     |          |
| Accumulation, Hyaline Droplet                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1 1.0  |          |
| Mineralization                               |             |      |      | 1    | 1    | 1    |      | 1    |      | 1    | 1    | 1    |      |      | 1    | 1    | 1    | 1    |      | 1    | 1    | 1    | 1    | 37 1.0 |          |
| Nephropathy                                  | 2           | 2    | 2    | 2    | 1    | 2    | 2    | 2    |      | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 1    | 2    | 2    | 2    | 2    | 1    | 2    | 2      | 49 2.0   |
| Pigmentation                                 | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1      | 46 1.0   |
| Papilla, Necrosis                            |             | 4    |      |      |      |      |      | 4    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        | 2 4.0    |
| Pelvis, Inflammation                         |             | 4    |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        | 3 2.3    |
| Pelvis, Transitional Epithelium, Hyperplasia |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |        | 2 1.0    |
| Urinary Bladder                              | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50     |          |
| Hemorrhage                                   |             |      |      |      |      |      |      | 3    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        | 1 3.0    |
| Inflammation                                 |             | 4    |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        | 2 3.0    |
| Ulcer  |             | 4    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |        | 1 4.0    |

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

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

|                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |                    |      |
|-----------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|
| FISCHER 344 RATS MALE | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | males<br>(cont...) |      |
|                       | 0728        | 0728 | 0519 | 0727 | 0538 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0727 | 0661 | 0662 | 0667 | 0727 | 0727 | 0664 | 0727 | 0667 |                    | 0571 |
| 20 MG/KG              | ANIMAL ID   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | males<br>(cont...) |      |
|                       | 0010        | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 |                    | 0010 |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus Foreign Body Perforation                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon Parasite Metazoan               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum Parasite Metazoan              | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum Inflammation, Chronic Active | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum Parasite Metazoan               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver Clear Cell Focus                                 | X | X |   | X |   | X | X |   | X | X |   | X | X |   |   |   | X |   | X | X |   | X | X |
| Liver Degeneration, Cystic                             |   |   |   |   | 1 |   |   |   |   |   | 1 |   | 1 |   | 1 |   |   |   |   |   |   |   | 2 |
| Liver Eosinophilic Focus                               |   |   | X |   | X |   | X |   | X | X |   |   |   | X | X |   | X |   | X |   |   | X | X |
| Liver Fatty Change, Focal                              |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 2 |
| Liver Fatty Change, Diffuse                            |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   | 2 |   |
| Liver Hematopoietic Cell Proliferation                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |
| Liver Inflammation                                     | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

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 Lab: BAT

| FISCHER 344 RATS MALE<br>20 MG/KG       | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | males<br>(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
|   | 0728        | 0728 | 0729 | 0727 | 0728 | 0729 | 0727 | 0728 | 0729 | 0727 | 0728 | 0729 | 0727 | 0728 | 0729 | 0727 | 0728 | 0729 | 0727 | 0728 | 0729 | 0727 | 0728 | 0729 | 0727 |           |                    |
| Mixed Cell Focus                        | X           | X    |      |      |      |      | X    | X    | X    | X    |      |      | X    | X    |      | X    | X    | X    | X    |      |      |      |      |      |      |           |                    |
| Vacuolization Cytoplasmic               |             |      |      | 1    |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2         |                    |
| Bile Duct, Cyst                         |             |      |      | X    |      | X    |      |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Bile Duct, Fibrosis                     | 1           | 1    | 1    | 2    |      | 1    | 1    |      | 2    | 1    | 1    | 1    |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1    | 1    |           |                    |
| Bile Duct, Hyperplasia                  | 2           | 2    | 2    | 2    |      | 2    | 2    | 1    | 2    | 2    | 2    | 2    | 1    | 2    | 2    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 1    | 2         |                    |
| Hepatocyte, Hypertrophy                 |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |      | 3    | 2    | 1    |      |           |                    |
| Hepatocyte, Necrosis                    |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |           |                    |
| Oval Cell, Hyperplasia                  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |           |                    |
| Mesentery                               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | +         |                    |
| Fat, Necrosis                           |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Pancreas                                | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                    |
| Cyst                                    |             |      |      |      |      |      |      |      | X    | X    |      |      |      |      |      |      |      | X    |      |      |      |      |      |      |      |           |                    |
| Infiltration Cellular, Mononuclear Cell | 1           |      |      | 1    |      |      | 2    |      |      | 1    |      |      |      |      |      |      |      | 1    |      |      | 1    |      |      |      | 2    |           |                    |
| Lipomatosis                             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |           |                    |
| Acinus, Atrophy                         | 2           |      | 2    |      |      |      |      | 2    |      |      | 1    |      | 2    |      |      |      |      | 2    | 3    |      |      | 1    |      | 1    |      |           |                    |
| Acinus, Hyperplasia                     |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Salivary Glands                         | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                    |
| Stomach, Forestomach                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                    |
| Hyperplasia, Squamous                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Inflammation                            |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Ulcer                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Stomach, Glandular                      | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                    |
| Inflammation                            |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Ulcer                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Tooth                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      | +    |      |      |      |      |      |      |      |      | +    |           |                    |

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| FISCHER 344 RATS MALE<br>20 MG/KG | DAY ON TEST |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | ANIMAL ID | males<br>(cont...) |
|-----------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|
|                                   | 078         | 078 | 059 | 077 | 053 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 066 | 066 | 066 | 077 | 077 | 077 | 066 | 077 | 066 | 055 | 077 | 077 |           |                    |
|                                   | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0001      |                    |
|                                   | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0002      |                    |
|                                   | 1           | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 0003      |                    |
|                                   | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0004      |                    |
|                                   | 1           | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 0   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 0   | 1   | 2   | 3   | 4   | 0005      |                    |

Dysplasia  
 Periodontal Tissue, Inflammation

2 X

**CARDIOVASCULAR SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 |
| Thrombosis     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 2 |

**ENDOCRINE SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis               |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Hyperplasia               |   |   |   |   |   |   |   | 2 |   | 1 |   | 1 |   |   |   |   |   | 1 |   |   |   |   | 2 |
| Hypertrophy               |   |   | 2 |   |   |   |   | 2 | 2 |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |
| Vacuolization Cytoplasmic |   |   | 2 |   |   |   |   | 2 | 2 | 1 |   | 2 | 1 | 1 |   |   | 1 | 1 |   | 1 |   |   | 1 |
| Adrenal Medulla           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia               |   |   |   |   |   |   |   | 1 | 2 |   |   |   |   | 3 | 1 |   |   |   |   |   |   | 1 | 1 |
| Islets, Pancreatic        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Parathyroid Gland         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Diffuse      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pituitary Gland           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pars Distalis, Cyst       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |

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| FISCHER 344 RATS MALE<br>20 MG/KG | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | males<br>(cont...) |                  |                  |                  |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|--------------------|------------------|------------------|------------------|
|                                   | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>5<br>1<br>9 | 0<br>7<br>2<br>7 | 0<br>5<br>3<br>8 | 0<br>7<br>2<br>7 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>6<br>6<br>1 | 0<br>6<br>6<br>2 | 0<br>6<br>1<br>6 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>7 | 0<br>6<br>5<br>4 | 0<br>7<br>2<br>9 | 0<br>6<br>2<br>6 |           |                    | 0<br>5<br>8<br>1 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>7 |
|                                   | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0         | 0                  | 0                | 0<br>0<br>1<br>0 |                  |
| Pars Distalis, Hyperplasia        | 2                |                  |                  | 3                |                  |                  |                  |                  |                  |                  |                  |                  | 2                | 1                |                  |                  |                  | 3                | 2                |                  |           |                    | 3                | 2                |                  |
| Thyroid Gland                     | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                  | +                | +                |                  |
| C-cell, Hyperplasia               | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |                  | 3                | 1                |           | 1                  | 1                |                  |                  |
| Follicular Cell, Hyperplasia      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                    |                  |                  |                  |

**GENERAL BODY SYSTEM**

Tissue NOS

+

**GENITAL SYSTEM**

Coagulating Gland

+

Epididymis  
Inflammation

+  
1

Preputial Gland  
Inflammation

+  
2 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 2 2 1 2 1

Prostate  
Inflammation  
Epithelium, Hyperplasia

+  
1 2 1 1 1 2 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1

Seminal Vesicle

+ +

Testes  
Mineralization  
Interstitial Cell, Hyperplasia

+  
1

**HEMATOPOIETIC SYSTEM**

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| FISCHER 344 RATS MALE<br>20 MG/KG                           | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | males<br>(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
|   | 0728        | 0728 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 |           |                    |
| Bone Marrow<br>Hemorrhage                                   | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                  |
| Hyperplasia   | 2           |      | 2    | 2    |      |      | 2    |      |      | 2    | 1    | 2    | 3    | 2    |      |      | 2    | 2    | 2    |      |           | 2                  |
| Myelofibrosis   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Lymph Node<br>Mediastinal, Ectasia                          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           | +                  |
| Mediastinal, Hyperplasia, Lymphoid                          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           | 2                  |
| Lymph Node, Mandibular                                      | M           | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M    | M         | M                  |
| Lymph Node, Mesenteric<br>Infiltration Cellular, Histiocyte | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                  |
|   | 1           | 1    |      | 1    |      |      |      | 2    |      |      |      | 1    |      | 1    | 1    |      | 1    | 1    |      | 2    | 2         | 2                  |
| Spleen<br>Hematopoietic Cell Proliferation                  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                  |
| Pigmentation  | 1           | 2    | 2    | 2    |      | 2    | 1    | 2    | 2    | 1    | 2    | 2    | 1    | 2    | 1    | 2    | 2    | 1    | 1    | 1    | 2         | 4                  |
| Capsule, Fibrosis   | 2           | 2    | 2    | 3    | 2    | 2    | 2    | 3    | 2    | 2    | 3    | 3    |      | 1    | 2    | 3    | 3    | 2    | 2    | 2    | 3         |                    |
| Capsule, Hypertrophy, Mesothelium                           |             | 1    |      |      |      |      | 1    |      |      |      | 1    |      |      |      |      |      |      |      |      |      |           | 3                  |
| Lymphoid Follicle, Atrophy                                  |             |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           | 3                  |
| Red Pulp, Atrophy   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           | 1                  |
| Thymus<br>Atrophy   | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +    | +    | +         | +                  |
|   | 2           | 2    | 2    | 3    | 3    | 2    | 2    | 3    | 2    | 2    | 2    | 2    | 2    | 2    |      | 3    | 2    | 2    |      | 2    | 2         | 4                  |
| <b>INTEGUMENTARY SYSTEM</b>                                 |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Mammary Gland<br>Hyperplasia                                | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | M    | +    | +    | +    | +         | +                  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST   | FISCHER 344 RATS MALE |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | males<br>(cont...) |
|---|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
|   | 078                   | 078  | 059  | 077  | 053  | 072  | 072  | 072  | 072  | 072  | 072  | 066  | 066  | 066  | 072  | 072  | 072  | 066  | 072  | 072  | 066  | 058  | 072  | 072  |      |           |                    |
| 20 MG/KG  | 0010                  | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010 | 0010      |                    |
| Skin  | +                     | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         |                    |
| <b>MUSCULOSKELETAL SYSTEM</b>                           |                       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Bone  | +                     | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         |                    |
| <b>NERVOUS SYSTEM</b>                                   |                       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Brain   | +                     | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         |                    |
| <b>RESPIRATORY SYSTEM</b>                               |                       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Lung  | +                     | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                    |
| Congestion  |                       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Inflammation  |                       | 2    |      |      |      |      |      | 2    |      |      | 2    |      |      |      |      |      | 2    | 1    |      |      |      |      |      |      |      |           |                    |
| Alveolar Epithelium, Hyperplasia                        |                       |      |      |      |      |      | 2    | 4    |      | 2    |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |           |                    |
| Alveolus, Foreign Body                                  |                       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Alveolus, Infiltration Cellular, Histiocyte             |                       | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |           |                    |
| Nose  | +                     | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    |           |                    |
| Foreign Body  |                       |      |      |      |      |      | X    |      |      |      |      | X    |      | X    |      |      |      |      |      |      |      | X    | X    |      |      |           |                    |
| Inflammation  | 1                     | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1    | 1    | 1    | 2    |      | 1    | 1    | 1    | 1    |      | 1    | 1    |      | 2    | 2    | 2    | 1    |           |                    |
| Glands, Olfactory Epithelium, Dilatation                |                       |      |      |      |      |      |      | 1    |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                    |
| Glands, Respiratory Epithelium, Dilatation              |                       |      | 1    | 1    |      |      |      |      | 1    |      |      |      |      |      | 1    | 1    | 1    |      |      | 1    | 1    | 1    | 1    |      |      |           |                    |
| Glands, Respiratory Epithelium, Hyperplasia             |                       |      |      | 1    |      |      |      |      |      |      |      | 1    |      |      |      |      |      | 2    |      |      |      |      |      |      |      |           |                    |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory | 1                     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |      | 1    | 1    | 1    | 1    |      |      | 1    | 1    | 1    | 1    | 1    | 1    |           |                    |
| Glands, Transitional Epithelium, Dilatation             |                       |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      |           |                    |
| Glands, Transitional Epithelium, Hyperplasia            |                       | 1    | 2    |      | 1    |      |      | 1    |      | 1    |      |      | 1    |      | 1    |      |      | 1    | 1    | 1    |      | 2    | 1    | 1    |      |           |                    |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     | 2                     | 2    | 1    | 2    |      | 2    | 2    | 1    | 2    | 2    | 3    | 2    | 1    | 3    | 1    | 3    | 1    | 3    | 2    |      | 2    | 2    | 2    | 2    | 1    |           |                    |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>20 MG/KG | DAY ON TEST |      | ANIMAL ID |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |   |  | males<br>(cont...) |
|-----------------------------------|-------------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|--|--------------------|
|                                   | 0728        | 0728 | 0728      | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 |   |  |                    |
|                                   | 0           | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0 |  |                    |
|                                   | 7           | 7    | 5         | 7    | 5    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 6    | 6    | 6    | 7    | 7    | 7    | 6    | 7    | 7    | 6    | 5    | 7    | 7    | 7 |  |                    |
|                                   | 2           | 2    | 1         | 2    | 3    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 6    | 1    | 1    | 2    | 2    | 2    | 5    | 2    | 2    | 2    | 8    | 2    | 2    | 2 |  |                    |
|                                   | 8           | 8    | 9         | 7    | 8    | 7    | 8    | 7    | 8    | 8    | 7    | 8    | 1    | 2    | 6    | 8    | 7    | 9    | 4    | 9    | 7    | 6    | 1    | 9    | 9    | 7 |  |                    |
|                                   | 0           | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0 |  |                    |
|                                   | 0           | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0 |  |                    |
|                                   | 1           | 1    | 1         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1 |  |                    |
|                                   | 0           | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2 |  |                    |
|                                   | 1           | 2    | 3         | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 0    | 1    | 2    | 3    | 4    | 5    | 5 |  |                    |

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Olfactory Epithelium, Degeneration  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Olfactory Epithelium, Hyperplasia, Basal Cell   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |
| Olfactory Epithelium, Metaplasia, Respiratory Epithelium, Accumulation, Hyaline Droplet |   |   |   | 1 | 2 |   |   |   |   |   |   | 2 |   |   | 1 |   |   |   |   |   |   |   |   |   | 1 | 1 | 2 |   |
| Respiratory Epithelium, Hyperplasia   | 2 | 2 | 1 | 3 |   |   | 2 | 2 | 1 | 2 | 1 | 2 | 1 |   |   | 2 | 1 | 2 |   |   |   |   |   |   |   |   |   |   |
| Transitional Epithelium, Hyperplasia  |   |   |   |   |   |   |   |   |   |   | 2 | 2 |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   | 2 | 1 |
|   |   |   |   |   |   |   |   |   |   |   | 1 | 1 | 1 |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   | 2 |   |
| Trachea Inflammation  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
|   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**SPECIAL SENSES SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Eye Retina, Atrophy        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Harderian Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Zymbal's Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney Cyst                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Mineralization                               | 1 | 1 |   | 1 |   |   | 1 | 1 |   | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |  |
| Nephropathy                                  | 2 | 3 | 2 | 2 | 2 | 4 | 3 | 4 | 2 | 3 | 4 | 3 | 2 | 1 | 1 | 3 | 3 | 3 | 2 | 2 | 4 | 1 | 2 | 2 | 2 | 2 |   |  |
| Pigmentation                                 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 2 |   |   | 1 | 1 | 2 | 1 |   | 1 | 1 | 3 | 1 | 1 | 1 | 1 |   |  |
| Pelvis, Inflammation                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically      M .. Missing tissue      1-4 .. Lesion qualified as:  
 X .. Lesion present      A .. Autolysis precludes evaluation      1) Minimal 3) Moderate  
 I .. Insufficient tissue      BLANK .. Not examined microscopically      2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

|                              |                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                            |
|------------------------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------------|
| <b>FISCHER 344 RATS MALE</b> | DAY ON TEST     | 078 | 078 | 059 | 077 | 057 | 077 | 077 | 077 | 077 | 077 | 077 | 066 | 066 | 066 | 077 | 077 | 077 | 066 | 077 | 066 | 057 | 077 | 077 | <b>males<br/>(cont...)</b> |
|                              | <b>20 MG/KG</b> | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 |                            |
|                              | ANIMAL ID       | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 | 010 |                            |

Urinary Bladder  
 Inflammation

+ +

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
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 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | * TOTALS |    |    |    |
|-----------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|
|                       | 07          | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 02 | 07 | 01 | 06 | 06 | 01 | 07 | 07 | 02 | 07 |          | 07 | 06 | 07 |
| 20 MG/KG              | 00          | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00       | 00 | 00 | 00 |
| ANIMAL ID             | 01          | 00 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01       | 01 | 01 | 01 |
|                       | 22          | 22 | 22 | 22 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 44 | 44 | 44 | 44 | 44 | 44 | 44       | 44 | 44 | 44 |
|                       | 67          | 78 | 88 | 95 | 09 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 | 06       | 07 | 08 | 09 |

**ALIMENTARY SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Foreign Body                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Perforation                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Parasite Metazoan                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Parasite Metazoan                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |
| Intestine Small, Duodenum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Inflammation, Chronic Active     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Parasite Metazoan                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Intestine Small, Jejunum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Liver                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Clear Cell Focus                 | X | X | X |   | X |   | X |   |   |   |   | X |   |   |   |   |   |   | X | X | X |   | X | 26     |
| Degeneration, Cystic             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 9 1.3  |
| Eosinophilic Focus               |   |   |   |   | X | X | X | X | X |   |   |   |   |   | X | X |   |   | X | X | X |   |   | 21     |
| Fatty Change, Focal              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 1.3  |
| Fatty Change, Diffuse            |   |   |   |   |   |   | 1 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5 1.6  |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0  |
| Inflammation                     | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 |   | 1 | 1 | 1 | 1 |   | 1 | 1 | 42 1.0 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>20 MG/KG       | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |      |      |      |      |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|
|   | 0727        | 0728 | 0728 | 0645 | 0729 | 0727 | 0727 | 0727 | 0727 | 0670 | 0722 | 0727 | 0721 | 0666 | 0661 | 0727 | 0727 | 0223 | 0722 | 0722 |          | 0668 | 0727 | 0677 | 0727 | 0677 |
| ANIMAL ID                               | 001         | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001  | 001      | 001  | 001  | 001  | 001  | 001  |
| Mixed Cell Focus                        |             | X    |      |      |      |      |      |      |      |      |      | X    |      |      |      |      | X    |      |      |      |          |      |      |      |      | 17   |
| Vacuolization Cytoplasmic               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      | 3    |
| Bile Duct, Cyst                         |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      | 3    |
| Bile Duct, Fibrosis                     | 1           | 1    | 1    | 1    | 1    | 1    | 1    |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1        | 1    | 1    | 1    | 1    | 41   |
| Bile Duct, Hyperplasia                  | 1           | 1    | 2    | 2    | 1    | 2    | 1    |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 1    | 2    | 2    | 1    | 2        | 1    |      |      | 44   |      |
| Hepatocyte, Hypertrophy                 |             | 1    |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      | 6    |
| Hepatocyte, Necrosis                    |             |      |      |      |      |      |      |      |      | 3    |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      | 2    |
| Oval Cell, Hyperplasia                  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |      |      |      |          |      |      |      |      | 2    |
| Mesentery                               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      | 2    |
| Fat, Necrosis                           |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | +    |      |      | 1    |
| Pancreas                                | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +    | 50   |
| Cyst                                    |             |      |      |      | X    |      |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |          |      | X    |      |      | 6    |
| Infiltration Cellular, Mononuclear Cell | 1           | 1    |      | 1    |      |      |      |      | 1    |      | 1    | 1    |      |      | 2    |      |      |      |      | 1    | 1        |      |      |      | 16   |      |
| Lipomatosis                             |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      | 1    |
| Acinus, Atrophy                         |             |      |      |      | 2    | 2    | 1    |      |      |      | 1    | 1    |      | 1    | 2    | 1    |      |      |      |      |          |      |      |      | 17   |      |
| Acinus, Hyperplasia                     |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 3    |      |      | 1    |
| Salivary Glands                         | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +    | 50   |
| Stomach, Forestomach                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +    | 50   |
| Hyperplasia, Squamous                   |             |      |      |      |      | 2    |      | 3    | 2    | 2    |      |      |      | 2    |      |      |      |      |      |      |          |      |      |      |      | 5    |
| Inflammation                            |             |      |      |      |      | 3    |      | 2    | 2    | 3    |      |      |      | 3    |      |      |      |      |      |      |          |      |      |      |      | 5    |
| Ulcer                                   |             |      |      |      |      | 3    |      | 3    | 3    | 2    |      |      |      | 2    |      |      |      |      |      |      |          |      |      |      |      | 5    |
| Stomach, Glandular                      | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +    | 50   |
| Inflammation                            |             |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |          |      | 2    |      |      | 2    |
| Ulcer                                   |             |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |          |      | 2    |      |      | 2    |
| Tooth                                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |      | 2    |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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|   |                                  | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                 |   |  |
|---|----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|---|--|
| <b>FISCHER 344 RATS MALE</b><br><b>20 MG/KG</b> |                                  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |   |   |           |                 |   |  |
|   |                                  | 7           | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 2 | 7 | 1 | 6 | 6 | 1 | 7 | 7 | 2 | 2 | 7 | 7 | 7 | 6 | 7 | 7         |                 |   |  |
|   |                                  | 2           | 2 | 2 | 4 | 2 | 2 | 2 | 0 | 8 | 1 | 3 | 2 | 4 | 8 | 4 | 2 | 2 | 2 | 3 | 2 | 2 | 7 | 7 | 8 | 8 | 8         | 2               | 2 |  |
|   |                                  | 7           | 8 | 8 | 5 | 9 | 7 | 7 | 7 | 0 | 2 | 7 | 8 | 7 | 6 | 3 | 9 | 8 | 7 | 3 | 7 | 7 | 8 | 8 | 8 | 7 | 7         | 7               |   |  |
|   | <b>ANIMAL ID</b>                 | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         | 0               |   |  |
|   |                                  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         | 0               |   |  |
|   |                                  | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1         | 1               |   |  |
|   |                                  | 2           | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4         | 5               |   |  |
|   |                                  | 6           | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0         | <b>* TOTALS</b> |   |  |
|   | Dysplasia                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>        |   |  |
|   | Periodontal Tissue, Inflammation |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1 2.0</b>    |   |  |
| <b>CARDIOVASCULAR SYSTEM</b>                    |                                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                 |   |  |
|   | Blood Vessel                     | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>50</b>       |   |  |
|   | Heart                            | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>50</b>       |   |  |
|   | Cardiomyopathy                   | 1           | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2         | <b>49 1.4</b>   |   |  |
|   | Thrombosis                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1 3.0</b>    |   |  |
| <b>ENDOCRINE SYSTEM</b>                         |                                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                 |   |  |
|   | Adrenal Cortex                   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>50</b>       |   |  |
|   | Angiectasis                      | 1           |   | 1 |   | 1 |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 1 |   |   |           | <b>7 1.1</b>    |   |  |
|   | Hyperplasia                      |             | 2 |   |   |   |   |   |   | 1 |   |   |   | 2 |   |   |   | 1 | 1 |   |   |   |   |   |   |   |           | <b>10 1.4</b>   |   |  |
|   | Hypertrophy                      |             |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   | 1 |   |   |           | <b>6 1.7</b>    |   |  |
|   | Vacuolization Cytoplasmic        |             |   |   | 1 |   | 1 | 2 | 2 | 1 |   |   | 1 | 1 | 2 | 1 | 1 |   | 1 | 1 |   |   | 2 | 1 | 1 |   |           | <b>26 1.3</b>   |   |  |
|   | Adrenal Medulla                  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>50</b>       |   |  |
|   | Hyperplasia                      |             |   |   |   |   | 1 | 1 | 2 | 2 |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |           | <b>12 1.7</b>   |   |  |
|   | Islets, Pancreatic               | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>50</b>       |   |  |
|   | Hyperplasia                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |           | <b>1 1.0</b>    |   |  |
|   | Parathyroid Gland                | +           | M | + | M | M | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>45</b> |                 |   |  |
|   | Hyperplasia, Diffuse             |             |   |   |   |   |   | 2 | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>2 2.5</b>    |   |  |
|   | Pituitary Gland                  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         | <b>50</b>       |   |  |
|   | Cyst                             |             | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>2</b>        |   |  |
|   | Pars Distalis, Cyst              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           | <b>1</b>        |   |  |

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>20 MG/KG | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | * TOTALS |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|----------|
|                                   | 0727        | 0728  | 0728  | 0624  | 0722  | 0722  | 0727  | 0727  | 0620  | 0708  | 0701  | 0703  | 0702  | 0704  | 0608  | 0604  | 0122  | 0707  | 0203  | 0702  | 0702  | 0608  | 0708  | 0707   |          |
| ANIMAL ID                         | 00126       | 00127 | 00128 | 00129 | 00130 | 00131 | 00132 | 00133 | 00134 | 00135 | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 | 00147 | 00148 | 00149  |          |
| Pars Distalis, Hyperplasia        | 3           | 2     |       |       |       |       | 2     | 3     |       | 2     |       |       | 3     |       |       |       |       | 2     |       |       |       |       |       |        | 15 2.3   |
| Thyroid Gland                     | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +      | 50       |
| C-cell, Hyperplasia               | 1           | 1     |       |       | 2     | 1     | 1     |       |       |       |       |       |       |       |       |       |       |       | 1     | 1     |       |       | 2     | 14 1.3 |          |
| Follicular Cell, Hyperplasia      |             | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1 1.0  |          |
| <b>GENERAL BODY SYSTEM</b>        |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |          |
| Tissue NOS                        |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | 2        |
| <b>GENITAL SYSTEM</b>             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |          |
| Coagulating Gland                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | 1        |
| Epididymis                        | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +      | 50       |
| Inflammation                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |        | 2 1.5    |
| Preputial Gland                   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +      | 50       |
| Inflammation                      | 2           | 2     | 1     | 2     | 2     | 2     | 1     | 1     | 1     |       | 1     |       | 1     | 1     |       |       | 1     |       | 2     | 2     | 3     | 1     | 1     | 1      | 43 1.4   |
| Prostate                          | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +      | 50       |
| Inflammation                      |             |       |       | 1     |       | 4     | 2     |       | 3     |       |       |       |       |       |       |       | 2     |       |       | 2     |       |       |       | 18 1.6 |          |
| Epithelium, Hyperplasia           |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       | 2 2.0  |          |
| Seminal Vesicle                   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +      | 50       |
| Testes                            | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +      | 50       |
| Mineralization                    |             |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | 1 2.0    |
| Interstitial Cell, Hyperplasia    |             |       |       | 2     |       |       | 2     |       |       |       |       |       |       |       |       |       |       | 1     |       |       | 2     |       | 3     | 6 1.8  |          |

**HEMATOPOIETIC SYSTEM**

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TDMS No. 20107 - 03  
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| FISCHER 344 RATS MALE<br>20 MG/KG  | DAY ON TEST |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | * TOTALS |          |          |          |
|------------------------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                                    | 07<br>27    | 07<br>28 | 07<br>28 | 06<br>45 | 07<br>29 | 07<br>27 | 07<br>27 | 07<br>27 | 07<br>27 | 06<br>80 | 07<br>12 | 07<br>24 | 07<br>24 | 06<br>86 | 06<br>43 | 01<br>29 | 07<br>28 | 07<br>27 | 02<br>23 | 07<br>27 |          | 06<br>88 | 07<br>27 | 07<br>27 |
| ANIMAL ID                          | 00<br>11    | 00<br>22 | 00<br>22 | 00<br>33 | 00<br>33 | 00<br>33 | 00<br>33 | 00<br>33 | 00<br>33 | 00<br>44 | 00<br>55 | 00<br>66 | 00<br>77 | 00<br>88 | 00<br>99 | 00<br>00 | 00<br>00 | 00<br>00 | 00<br>00 | 00<br>00 | 00<br>00 | 00<br>00 | 00<br>00 | 00<br>00 |
| Bone Marrow                        | +           | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | 50       |
| Hemorrhage                         |             |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | 1 2.0    |
| Hyperplasia                        |             | 2        | 2        | 2        | 2        |          | 2        |          | 2        | 2        | 2        |          |          |          | 3        |          | 3        | 2        |          | 2        | 3        | 3        |          | 28 2.1   |
| Myelofibrosis                      |             |          |          |          |          | 2        |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | 1 2.0    |
| Lymph Node                         |             |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | 3        |
| Mediastinal, Ectasia               |             |          |          |          |          |          |          |          |          |          |          |          |          |          | 3        |          |          |          |          |          |          |          |          | 2 2.5    |
| Mediastinal, Hyperplasia, Lymphoid |             |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | 1 2.0    |
| Lymph Node, Mandibular             | M           | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | M        | 0        |
| Lymph Node, Mesenteric             | +           | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | 50       |
| Infiltration Cellular, Histiocyte  | 1           | 2        | 1        | 1        | 1        |          | 1        |          |          | 1        | 1        |          |          |          | 1        |          |          |          | 2        | 1        | 2        |          | 1 2 1 1  | 30 1.3   |
| Spleen                             | +           | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | 50       |
| Hematopoietic Cell Proliferation   | 2           | 1        | 1        | 1        | 2        |          | 2        |          |          | 1        | 2        | 1        | 1        | 1        | 3        |          | 1        |          |          | 1        | 1        | 1        | 1        | 42 1.5   |
| Pigmentation                       | 2           | 2        | 2        | 2        | 2        | 3        | 2        | 3        | 3        | 2        | 2        | 2        | 2        | 2        | 1        | 1        | 2        |          | 2        | 2        | 2        | 1        | 1        | 47 2.1   |
| Capsule, Fibrosis                  |             |          |          |          |          |          | 1        |          |          |          |          |          |          |          |          |          |          |          |          |          |          | 2        |          | 2 1.5    |
| Capsule, Hypertrophy, Mesothelium  |             |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | 3 1.0    |
| Lymphoid Follicle, Atrophy         |             |          |          |          |          |          |          |          |          |          | 1        |          |          |          |          |          |          |          |          |          |          |          |          | 2 1.5    |
| Red Pulp, Atrophy                  | 3           |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | 1 3.0    |
| Thymus                             | +           | +        | +        | M        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | 48       |
| Atrophy                            | 2           | 2        | 3        |          | 3        |          | 2        | 3        | 3        | 4        | 3        | 2        |          | 2        | 2        | 2        | 3        | 3        | 3        | 3        | 2        | 2        | 3        | 44 2.5   |
| <b>INTEGUMENTARY SYSTEM</b>        |             |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |
| Mammary Gland                      | +           | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | 49       |
| Hyperplasia                        |             |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | 2 1.0    |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST   | FISCHER 344 RATS MALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |        |   |
|---|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--------|---|
|   | 20 MG/KG              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |        |   |
| ANIMAL ID   | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0      |   |
|   | 7                     | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 2 | 7 | 1 | 6 | 6 | 1 | 7 | 7 | 2 | 2 | 7 | 7 | 7 | 6 | 7        | 7      |   |
|   | 2                     | 2 | 2 | 4 | 2 | 2 | 2 | 0 | 8 | 1 | 3 | 2 | 4 | 8 | 4 | 2 | 2 | 2 | 2 | 3 | 2 | 7 | 7 | 8 | 8        | 2      | 2 |
|   | 7                     | 8 | 8 | 5 | 9 | 7 | 7 | 7 | 0 | 2 | 7 | 8 | 7 | 6 | 3 | 9 | 8 | 7 | 3 | 7 | 7 | 8 | 8 | 8 | 7        | 7      |   |
|   | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0      |   |
|   | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0      |   |
|   | 1                     | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1        | 1      |   |
|   | 2                     | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4        | 5      |   |
|   | 6                     | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0        |        |   |
| Skin  | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 50     |   |
| <b>MUSCULOSKELETAL SYSTEM</b>                           |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |        |   |
| Bone  | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 50     |   |
| <b>NERVOUS SYSTEM</b>                                   |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |        |   |
| Brain   | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 50     |   |
| <b>RESPIRATORY SYSTEM</b>                               |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |        |   |
| Lung  | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 50     |   |
| Congestion  |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |          | 1 3.0  |   |
| Inflammation  |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |          | 6 1.7  |   |
| Alveolar Epithelium, Hyperplasia                        | 1                     |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |          | 6 2.3  |   |
| Alveolus, Foreign Body                                  |                       |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |          | 1      |   |
| Alveolus, Infiltration Cellular, Histiocyte             |                       |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   | 1 |   |   |   | 1 |   |   |   |   |          | 5 1.0  |   |
| Nose  | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | 50     |   |
| Foreign Body  |                       | X |   |   | X | X |   |   | X | X |   |   |   |   |   | X |   |   |   |   |   |   |   |   |          | 11     |   |
| Inflammation  |                       | 1 |   | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 |   |   |   |   | 1 |   | 1 | 2 |   | 1 | 1        | 38 1.2 |   |
| Glands, Olfactory Epithelium, Dilatation                |                       |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | 3 1.0  |   |
| Glands, Respiratory Epithelium, Dilatation              |                       |   |   | 1 |   |   | 1 |   | 1 | 1 |   | 1 |   |   | 1 |   | 1 | 1 |   |   |   |   |   | 1 |          | 19 1.0 |   |
| Glands, Respiratory Epithelium, Hyperplasia             |                       |   |   |   | 2 |   | 2 |   |   | 1 |   |   |   |   | 2 |   |   |   |   |   |   |   |   | 1 |          | 8 1.5  |   |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory | 1                     | 1 | 1 | 1 | 1 |   | 1 |   | 1 |   |   | 1 |   |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1        | 39 1.0 |   |
| Glands, Transitional Epithelium, Dilatation             |                       |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   | 1 |   |   |   |   |   |   |   |          | 5 1.2  |   |
| Glands, Transitional Epithelium, Hyperplasia            | 1                     |   |   | 1 |   |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   |   | 2 | 1 |   |   | 1 |   | 24 1.1   |        |   |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     | 1                     | 1 |   | 1 |   |   | 1 | 1 |   | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 |   | 1 | 1 | 2 | 2 | 2 | 2 | 2        | 40 1.7 |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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 M .. Missing tissue  
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 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

| FISCHER 344 RATS MALE | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | * TOTALS |
|-----------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
|                       | 07          | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 06 | 07 | 02 | 07 | 01 | 06 | 06 | 01 | 07 | 07 | 02 | 02 | 07 | 07 | 06 | 07 |          |
| 20 MG/KG              | 00          | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00       |
| ANIMAL ID             | 01          | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01       |
|                       | 26          | 27 | 28 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49       |

|   |   |  |  |  |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |  |   |   |   |     |
|---|---|--|--|--|---|---|---|---|---|---|---|---|--|---|---|--|---|---|--|---|---|--|---|---|---|-----|
| Olfactory Epithelium, Degeneration                    | 2 |  |  |  |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |  |   |   | 1 | 2.0 |
| Olfactory Epithelium, Hyperplasia, Basal Cell         |   |  |  |  |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |  |   |   | 1 | 1.0 |
| Olfactory Epithelium, Metaplasia, Respiratory         | 1 |  |  |  |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |  |   |   | 1 | 1.3 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 1 |  |  |  |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |  |   |   |   |     |
| Respiratory Epithelium, Hyperplasia                   | 1 |  |  |  | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 2 |  | 1 | 1 |  | 1 | 1 |  | 1 | 1 |  | 2 | 1 |   |     |
| Transitional Epithelium, Hyperplasia                  | 1 |  |  |  |   |   |   |   |   | 1 |   |   |  |   |   |  |   |   |  |   | 1 |  |   |   |   |     |

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Trachea Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  |     |
|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 | 1.0 |

**SPECIAL SENSES SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Eye Retina, Atrophy        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  |     |
|                            | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |
| Harderian Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  |     |
| Zymbal's Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  |     |
|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 | 1.0 |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Kidney Cyst                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |     |
| Mineralization                               | 1 |   |   | 1 | 1 | 1 |   | 1 | 2 | 1 | 1 |   | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 |   |     |
| Nephropathy                                  | 2 | 2 | 2 | 1 | 3 | 4 | 4 | 4 | 4 | 1 | 2 |   | 2 | 2 | 1 | 4 | 1 |   | 2 | 2 | 1 | 2 | 2 | 4 |   |     |
| Pigmentation                                 | 1 | 1 | 1 |   | 1 | 1 |   | 1 |   |   |   |   | 1 |   |   |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 |   |     |
| Pelvis, Inflammation                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 2.0 |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1.7 |

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 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST                  | FISCHER 344 RATS MALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |              |
|------------------------------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--------------|
|                              | 20 MG/KG              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |              |
| ANIMAL ID                    | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0            |
|                              | 7                     | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 2 | 7 | 1 | 6 | 6 | 1 | 7 | 7 | 2 | 7 | 7 | 7 | 6 | 7 | 7 | 7        |              |
|                              | 2                     | 2 | 2 | 4 | 2 | 2 | 2 | 0 | 8 | 1 | 3 | 2 | 4 | 8 | 4 | 2 | 2 | 2 | 3 | 2 | 2 | 8 | 8 | 2 | 2        |              |
|                              | 7                     | 8 | 8 | 5 | 9 | 7 | 7 | 0 | 2 | 7 | 8 | 7 | 6 | 3 | 9 | 8 | 7 | 3 | 7 | 7 | 8 | 8 | 7 | 7 |          |              |
|                              | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |              |
|                              | 0                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        |              |
|                              | 1                     | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1        |              |
|                              | 2                     | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5        |              |
|                              | 6                     | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0        |              |
|                              |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          | <b>50</b>    |
| Urinary Bladder Inflammation | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +        | <b>2 1.5</b> |

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 BLANK .. Not examined microscopically

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 2) Mild 4) Marked





| FISCHER 344 RATS MALE<br>60 MG/KG       | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | males<br>(cont...)    |                       |                       |                       |                       |                       |                       |   |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|
|   | 0<br>5<br>8<br>2      | 0<br>6<br>2<br>6      | 0<br>7<br>2<br>7      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>7      | 0<br>6<br>9<br>9      | 0<br>6<br>5<br>6      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>6<br>4<br>5      | 0<br>3<br>8<br>4      | 0<br>7<br>6<br>8      | 0<br>6<br>2<br>9      | 0<br>4<br>1<br>2      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>8      | 0<br>6<br>2<br>8      | 0<br>6<br>6<br>1      | 0<br>5<br>1<br>4      | 0<br>4<br>7<br>6      | 0<br>7<br>2<br>6      | 0<br>6<br>1<br>6      |                       | 0<br>7<br>2<br>4      | 0<br>6<br>1<br>4      | 0<br>7<br>2<br>6      | 0<br>6<br>2<br>1      | 0<br>7<br>2<br>4      | 0<br>6<br>1<br>6      |   |
| ANIMAL ID                               | 0<br>0<br>1<br>5<br>1 | 0<br>0<br>1<br>5<br>2 | 0<br>0<br>1<br>5<br>3 | 0<br>0<br>1<br>5<br>4 | 0<br>0<br>1<br>5<br>5 | 0<br>0<br>1<br>5<br>6 | 0<br>0<br>1<br>5<br>7 | 0<br>0<br>1<br>5<br>8 | 0<br>0<br>1<br>5<br>9 | 0<br>0<br>1<br>6<br>0 | 0<br>0<br>1<br>6<br>1 | 0<br>0<br>1<br>6<br>2 | 0<br>0<br>1<br>6<br>3 | 0<br>0<br>1<br>6<br>4 | 0<br>0<br>1<br>6<br>5 | 0<br>0<br>1<br>6<br>6 | 0<br>0<br>1<br>6<br>7 | 0<br>0<br>1<br>6<br>8 | 0<br>0<br>1<br>6<br>9 | 0<br>0<br>1<br>7<br>0 | 0<br>0<br>1<br>7<br>1 | 0<br>0<br>1<br>7<br>2 | 0<br>0<br>1<br>7<br>3 | 0<br>0<br>1<br>7<br>4 | 0<br>0<br>1<br>7<br>5 | 0<br>0<br>1<br>7<br>6 | 0<br>0<br>1<br>7<br>7 | 0<br>0<br>1<br>7<br>8 | 0<br>0<br>1<br>7<br>9 |   |
| Mixed Cell Focus                        | X                     |                       |                       | X                     | X                     | X                     |                       | X                     | X                     |                       |                       | X                     |                       | X                     | X                     | X                     | X                     | X                     | X                     | X                     | X                     | X                     | X                     | X                     | X                     | X                     | X                     | X                     |                       |   |
| Vacuolization Cytoplasmic               |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2 |
| Bile Duct, Fibrosis                     | 1                     | 1                     | 2                     | 1                     | 2                     | 1                     | 1                     | 1                     | 1                     |                       |                       | 2                     | 1                     |                       | 2                     | 1                     | 1                     | 2                     | 1                     | 1                     | 2                     | 1                     | 1                     | 2                     | 1                     | 1                     | 2                     | 2                     | 2                     |   |
| Bile Duct, Hyperplasia                  | 2                     | 1                     | 2                     | 1                     | 2                     | 2                     | 1                     | 1                     | 2                     | 3                     |                       | 2                     | 2                     |                       | 1                     | 1                     | 2                     | 2                     | 2                     | 3                     | 2                     | 2                     | 2                     | 2                     | 2                     | 2                     | 2                     | 2                     | 1                     |   |
| Hepatocyte, Hypertrophy                 | 3                     |                       |                       | 1                     | 1                     | 2                     |                       |                       | 1                     | 1                     | 1                     |                       | 1                     |                       | 1                     | 2                     | 1                     | 2                     |                       | 2                     |                       |                       | 1                     | 2                     | 2                     | 2                     | 1                     |                       | 1                     |   |
| Hepatocyte, Necrosis                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 |
| Oval Cell, Hyperplasia                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |   |
| Mesentery                               |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | + |
| Fat, Necrosis                           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3 |
| Pancreas                                | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |   |
| Cyst                                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X |
| Infiltration Cellular, Mononuclear Cell | 1                     |                       |                       |                       |                       | 2                     |                       | 2                     |                       |                       |                       | 1                     |                       |                       |                       |                       |                       | 1                     |                       |                       | 1                     | 1                     |                       | 2                     | 1                     | 2                     | 1                     | 1                     |                       |   |
| Metaplasia, Hepatocyte                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2 |
| Acinus, Atrophy                         |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       | 1                     | 2                     |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       | 2                     |                       |   |
| Salivary Glands                         | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |   |
| Stomach, Forestomach                    | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |   |
| Hyperplasia, Squamous                   |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       | 1                     | 2                     |                       |                       | 2                     | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |   |
| Inflammation                            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     |   |
| Ulcer                                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |   |
| Stomach, Glandular                      | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |   |
| Inflammation                            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |
| Mineralization                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2 |
| Necrosis                                |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1 |
| Tongue                                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | + |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked



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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>60 MG/KG    | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | males<br>(cont...) |
|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|--------------------|
|                                      | 0<br>5<br>8<br>2 | 0<br>6<br>2<br>6 | 0<br>7<br>2<br>7 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>7 | 0<br>6<br>9<br>9 | 0<br>6<br>5<br>6 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>9 | 0<br>6<br>8<br>5 | 0<br>6<br>2<br>4 | 0<br>3<br>8<br>4 | 0<br>7<br>2<br>8 | 0<br>6<br>6<br>9 | 0<br>4<br>1<br>2 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>6<br>6<br>1 | 0<br>5<br>7<br>4 | 0<br>4<br>9<br>6 | 0<br>7<br>2<br>8 | 0<br>6<br>1<br>6 | 0<br>6<br>7<br>6 | 0<br>5<br>9<br>8 |           |                    |
|                                      | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 00115511  |                    |
|                                      | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 00115511         |           |                    |
| Pars Distalis, Hyperplasia           | 1                |                  | 3                |                  | 2                |                  | 3                |                  |                  | 2                |                  |                  |                  | 1                |                  | 2                |                  |                  |                  |                  |                  | 3                | 1                |                  |           |                    |
| Thyroid Gland<br>C-cell, Hyperplasia | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | A                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                |                  |           |                    |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Epididymis<br>Inflammation      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |
| Preputial Gland<br>Cyst         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |
| Hyperplasia                     |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Inflammation                    | 2 |   |   | 2 | 1 | 1 | 1 | 2 | 1 |   | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 3 | 1 | 1 | 1 |  |
| Prostate<br>Inflammation        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |
| Pigmentation                    |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 | 2 |   | 3 | 2 |   | 1 |   |   | 2 |   |   |  |
| Epithelium, Hyperplasia         |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Seminal Vesicle<br>Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |
| Epithelium, Hyperplasia         |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |  |
| Testes<br>Mineralization        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |
| Interstitial Cell, Hyperplasia  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|                                 |   |   |   |   |   |   |   |   |   | 2 |   |   | 1 |   | 1 |   | 3 |   |   |   |   |   |   |   |   |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | ANIMAL ID             | males<br>(cont...) |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
|                       | 0<br>5<br>8<br>2      | 0<br>6<br>2<br>6      | 0<br>7<br>2<br>7      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>7      | 0<br>6<br>9<br>9      | 0<br>6<br>5<br>6      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>6<br>8<br>5      | 0<br>6<br>2<br>4      | 0<br>3<br>8<br>4      | 0<br>7<br>6<br>8      | 0<br>6<br>2<br>9      | 0<br>4<br>1<br>2      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>8      | 0<br>6<br>2<br>8      | 0<br>6<br>1<br>4      | 0<br>5<br>7<br>6      | 0<br>4<br>2<br>6      | 0<br>7<br>1<br>8      | 0<br>6<br>2<br>6      | 0<br>6<br>1<br>4      |                       |                    |
| 60 MG/KG              | 0<br>0<br>1<br>5<br>1 | 0<br>0<br>1<br>5<br>2 | 0<br>0<br>1<br>5<br>3 | 0<br>0<br>1<br>5<br>4 | 0<br>0<br>1<br>5<br>5 | 0<br>0<br>1<br>5<br>6 | 0<br>0<br>1<br>5<br>7 | 0<br>0<br>1<br>5<br>8 | 0<br>0<br>1<br>5<br>9 | 0<br>0<br>1<br>5<br>0 | 0<br>0<br>1<br>6<br>1 | 0<br>0<br>1<br>6<br>2 | 0<br>0<br>1<br>6<br>3 | 0<br>0<br>1<br>6<br>4 | 0<br>0<br>1<br>6<br>5 | 0<br>0<br>1<br>6<br>6 | 0<br>0<br>1<br>6<br>7 | 0<br>0<br>1<br>6<br>8 | 0<br>0<br>1<br>6<br>9 | 0<br>0<br>1<br>7<br>0 | 0<br>0<br>1<br>7<br>1 | 0<br>0<br>1<br>7<br>2 | 0<br>0<br>1<br>7<br>3 | 0<br>0<br>1<br>7<br>4 | 0<br>0<br>1<br>7<br>5 |                    |

**HEMATOPOIETIC SYSTEM**

|                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage                            |   |   |   | 2 |   | 3 |   |   |   |   |   |   |   |   |   |   | 2 |   | 2 |   |   |   |   |   |   |
| Hyperplasia                           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 4 | 2 | 2 |   |   |
| Lymph Node                            |   |   |   |   | + |   | + |   |   |   |   |   |   |   |   |   | + |   | + |   |   |   |   |   | + |
| Mediastinal, Ectasia                  |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Mediastinal, Hyperplasia, Lymphoid    |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |
| Mediastinal, Hyperplasia, Plasma Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular                | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mesenteric                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ectasia                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia, Lymphoid                 |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia, Plasma Cell              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Infiltration Cellular, Histiocyte     | 1 | 1 | 2 | 2 |   |   | 2 | 2 |   |   | 2 | 3 |   | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |   | 1 |   |   |
| Spleen                                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Congestion                            | 1 |   | 2 | 2 | 2 |   |   | 2 | 2 |   |   | 2 | 3 |   | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   | 2 |   |   |
| Hematopoietic Cell Proliferation      | 1 |   | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |   | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 3 | 2 |   |
| Inflammation, Suppurative             |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pigmentation                          | 3 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 1 | 3 | 1 | 2 | 2 | 3 |   | 2 | 2 |   |
| Capsule, Fibrosis                     | 1 |   |   | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 |   | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 1 | 2 | 2 |   |
| Capsule, Hypertrophy, Mesothelium     | 1 |   |   | 1 | 1 | 1 |   | 1 | 1 | 1 |   | 1 | 1 |   | 1 | 2 | 2 | 1 | 1 |   | 1 | 1 | 1 | 1 |   |
| Lymphoid Follicle, Atrophy            |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   | 2 | 2 |   | 2 | 2 |   | 2 | 2 |   |
| Red Pulp, Atrophy                     |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   | 3 |   |   |   |   |   | 3 |   | 2 |   |
| Thymus                                | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | M | + | + | + | + | + | + | + |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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|                                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FISCHER 344 RATS MALE<br>60 MG/KG | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |   |
|                                   | ANIMAL ID   | 5 | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 6 | 3 | 7 | 6 | 4 | 7 | 7 | 7 | 6 | 6 | 5 | 4 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 |   |   |
|                                   |             | 8 | 2 | 2 | 2 | 9 | 5 | 2 | 2 | 4 | 8 | 2 | 6 | 1 | 2 | 2 | 2 | 6 | 1 | 7 | 9 | 2 | 1 | 2 | 6 | 1 | 2 | 6 | 1 | 2 | 6 | 1 | 2 | 6 |   |   |
|                                   |             | 2 | 6 | 7 | 9 | 7 | 9 | 6 | 8 | 5 | 4 | 8 | 9 | 2 | 8 | 8 | 8 | 1 | 4 | 6 | 6 | 6 | 8 | 6 | 4 | 6 | 4 | 6 | 4 | 6 | 4 | 6 | 4 | 6 |   |   |
|                                   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |
|                                   |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |
|                                   |             | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   |
|                                   |             | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |   |   |
|                                   |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

males  
(cont...)

Atrophy  
Hyperplasia, Lymphoid

|   |   |   |   |   |   |   |   |   |  |   |   |   |  |   |   |  |   |   |   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|---|---|---|---|---|---|---|---|---|--|---|---|---|--|---|---|--|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 |  | 3 | 2 | 2 |  | 2 | 3 |  | 3 | 2 | 2 | 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 | 3 |
|---|---|---|---|---|---|---|---|---|--|---|---|---|--|---|---|--|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|

INTEGUMENTARY SYSTEM

Mammary Gland  
Cyst

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Skin  
Cyst Epithelial Inclusion  
Inflammation

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

MUSCULOSKELETAL SYSTEM

Bone

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

NERVOUS SYSTEM

Brain

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

RESPIRATORY SYSTEM

Lung  
Congestion  
Inflammation  
Mineralization  
Alveolar Epithelium, Hyperplasia  
Alveolus, Infiltration Cellular, Histiocyte  
Alveolus, Inflammation, Suppurative

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| + | + | + | + | + | + | + | + | + | + | + | 3 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |   |   |   |   | 3 |   |   | 3 |   | 3 |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |   | 1 | 1 |   | 1 |   | 1 |   | 2 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Nose

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

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

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br><br>60 MG/KG                   | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | males<br>(cont...) |   |   |   |   |   |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|---|
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                    | 0 |   |   |   |   |
|   | 5           | 6 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 6 | 3 | 7 | 6 | 4 | 7 | 7 | 7 | 6 | 6 | 5 |                    | 4 | 7 | 6 | 7 | 6 |
|   | 8           | 2 | 2 | 2 | 2 | 9 | 5 | 2 | 2 | 4 | 8 | 2 | 6 | 1 | 2 | 2 | 2 | 6 | 1 | 7 | 9                  | 2 | 1 | 2 | 6 | 1 |
|   | 2           | 6 | 7 | 9 | 7 | 9 | 6 | 8 | 9 | 5 | 4 | 8 | 9 | 2 | 8 | 8 | 8 | 1 | 4 | 6 | 6                  | 8 | 6 | 4 | 1 |   |
| ANIMAL ID   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  | 0 | 0 | 0 | 0 | 0 |
|   | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                  | 0 | 0 | 0 | 0 | 0 |
|   | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1                  | 1 | 1 | 1 | 1 | 1 |
|   | 5           | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7                  | 7 | 7 | 7 | 7 | 7 |
|   | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1                  | 2 | 3 | 4 | 5 |   |
| Foreign Body  | X           |   |   |   |   |   | X |   |   |   |   |   | X |   |   |   |   |   | X |   | X                  |   |   |   | X |   |
| Inflammation  | 2           | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 |   | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1                  | 3 | 2 | 2 | 2 |   |
| Glands, Olfactory Epithelium, Dilatation                | 3           | 3 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | 3 |   | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3                  | 3 | 2 | 3 |   |   |
| Glands, Olfactory Epithelium, Hyperplasia               | 2           | 2 |   | 2 | 2 | 2 | 2 | 2 | 2 |   | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 1 | 1 | 2 | 2                  | 2 | 2 | 2 |   |   |
| Glands, Olfactory Epithelium, Metaplasia                | 2           | 2 | 1 | 1 | 2 | 2 |   | 2 | 2 | 2 |   | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |   | 1                  | 2 | 1 | 1 | 2 |   |
| Glands, Olfactory Epithelium, Necrosis                  |             |   | 3 |   |   |   | 3 |   |   |   |   |   |   | 3 | 3 |   |   | 3 | 3 | 3 | 2                  |   | 2 | 2 |   |   |
| Glands, Respiratory Epithelium, Dilatation              | 2           | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 2 |   | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1                  | 2 | 2 | 2 | 3 |   |
| Glands, Respiratory Epithelium, Hyperplasia             |             |   |   | 2 |   |   | 2 | 2 |   | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2                  | 2 | 2 | 2 | 1 |   |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory | 2           | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |   | 2 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3                  | 3 | 3 | 3 | 3 |   |
| Glands, Transitional Epithelium, Dilatation             |             |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |                    |   |   |   |   |   |
| Glands, Transitional Epithelium, Hyperplasia            | 1           | 2 |   | 2 |   | 1 | 3 | 1 | 2 | 2 |   | 1 | 2 | 2 | 1 | 2 |   | 2 | 2 | 3 | 2                  |   | 2 | 2 | 1 |   |
| Nerve, Atrophy  | 2           |   | 1 |   |   |   |   | 1 |   |   |   |   | 1 | 1 |   | 2 | 1 |   |   |   | 2                  |   |   |   | 1 |   |
| Olfactory Epithelium, Degeneration                      | 3           | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2                  | 2 | 2 | 2 | 3 |   |
| Olfactory Epithelium, Hyperplasia, Basal Cell           | 1           | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 |   | 1 |   | 1 |   | 1 | 1 | 2 | 1 |   |                    | 1 | 1 | 2 | 2 |   |
| Olfactory Epithelium, Metaplasia, Respiratory           | 2           |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 |                    |   | 1 | 1 | 2 |   |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   | 1           |   |   |   |   |   |   | 1 |   |   |   |   | 1 |   |   | 1 |   |   |   |   |                    |   |   |   |   |   |
| Respiratory Epithelium, Hyperplasia                     | 1           | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 |   | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2                  | 3 | 3 | 2 | 2 |   |
| Respiratory Epithelium, Ulcer                           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |   |   |   |   |
| Transitional Epithelium, Hyperplasia                    | 2           | 1 | 1 |   | 2 | 1 | 2 | 1 |   | 1 |   | 1 | 3 | 2 | 1 | 1 | 1 | 2 | 2 | 3 | 2                  | 2 | 2 | 1 | 1 |   |
| Trachea   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +                  | + | + | + | + |   |
| Inflammation  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |   |   |   |   |
| Perforation   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                    |   |   |   |   |   |
| Peritracheal Tissue, Inflammation                       | 3           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X                  |   |   |   |   |   |

**SPECIAL SENSES SYSTEM**

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lens, Degeneration |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/28/2011

Time Report Requested: 11:17:44

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

Lab: BAT

| FISCHER 344 RATS MALE<br>60 MG/KG            | DAY ON TEST      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | males<br>(cont...) |                       |                       |                       |                       |                       |                       |                       |                       |
|--|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|  | 0<br>5<br>8<br>2 | 0<br>6<br>2<br>6      | 0<br>7<br>2<br>7      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>6<br>9<br>6      | 0<br>6<br>5<br>2      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>6<br>8<br>5      | 0<br>6<br>2<br>4      | 0<br>7<br>8<br>8      | 0<br>6<br>2<br>9      | 0<br>3<br>8<br>4      | 0<br>7<br>2<br>8      | 0<br>6<br>6<br>9      | 0<br>4<br>1<br>2      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>8      | 0<br>6<br>6<br>1      | 0<br>5<br>7<br>6      | 0<br>4<br>2<br>6      |                    | 0<br>7<br>1<br>6      | 0<br>6<br>2<br>6      | 0<br>7<br>1<br>4      | 0<br>6<br>8<br>6      | 0<br>7<br>1<br>1      | 0<br>6<br>2<br>3      | 0<br>7<br>7<br>4      | 0<br>6<br>6<br>1      |
|  | ANIMAL ID        | 0<br>0<br>1<br>5<br>1 | 0<br>0<br>0<br>5<br>2 | 0<br>0<br>0<br>5<br>3 | 0<br>0<br>0<br>5<br>4 | 0<br>0<br>0<br>5<br>5 | 0<br>0<br>0<br>5<br>6 | 0<br>0<br>0<br>5<br>7 | 0<br>0<br>0<br>5<br>8 | 0<br>0<br>0<br>5<br>9 | 0<br>0<br>0<br>6<br>0 | 0<br>0<br>0<br>6<br>1 | 0<br>0<br>0<br>6<br>2 | 0<br>0<br>0<br>6<br>3 | 0<br>0<br>0<br>6<br>4 | 0<br>0<br>0<br>6<br>5 | 0<br>0<br>0<br>6<br>6 | 0<br>0<br>0<br>6<br>7 | 0<br>0<br>0<br>6<br>8 | 0<br>0<br>0<br>6<br>9 | 0<br>0<br>0<br>7<br>0 | 0<br>0<br>0<br>7<br>1 |                    | 0<br>0<br>0<br>7<br>2 | 0<br>0<br>0<br>7<br>3 | 0<br>0<br>0<br>7<br>4 | 0<br>0<br>0<br>7<br>5 | 0<br>0<br>0<br>7<br>6 | 0<br>0<br>0<br>7<br>7 | 0<br>0<br>0<br>7<br>8 | 0<br>0<br>0<br>7<br>9 |
| Retina, Atrophy                              | 2                |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                    |                       |                       |                       |                       |                       |                       |                       |                       |
| Harderian Gland Inflammation                 | +                | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                  | +                     | +                     | +                     | +                     | +                     | +                     |                       |                       |
| Zymbal's Gland                               | +                | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                  | +                     | +                     | +                     | +                     | +                     |                       |                       |                       |
| <b>URINARY SYSTEM</b>                        |                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                    |                       |                       |                       |                       |                       |                       |                       |                       |
| Kidney Cyst                                  | +                | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                  | +                     | +                     | +                     | +                     | +                     |                       |                       |                       |
| Mineralization                               | 1                | 3                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 2                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                  | 1                     | 1                     | 1                     | 1                     | 1                     |                       |                       |                       |
| Nephropathy                                  | 3                | 4                     | 3                     | 3                     | 2                     | 2                     | 2                     | 3                     | 3                     | 1                     |                       | 3                     | 4                     | 2                     | 3                     | 4                     | 2                     | 3                     | 2                     | 2                     | 2                     | 2                     | 2                  | 3                     | 3                     | 4                     |                       |                       |                       |                       |                       |
| Pigmentation                                 | 1                |                       | 2                     | 2                     | 2                     | 2                     | 1                     | 2                     | 2                     | 2                     | 1                     | 2                     | 1                     | 1                     | 2                     | 2                     | 2                     | 1                     | 1                     | 1                     |                       |                       | 2                  |                       |                       | 2                     | 1                     |                       |                       |                       |                       |
| Pelvis, Dilatation                           |                  | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                    |                       |                       |                       |                       |                       |                       |                       |                       |
| Pelvis, Transitional Epithelium, Hyperplasia |                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                    |                       |                       | 1                     |                       |                       |                       |                       |                       |
| Ureter Inflammation                          |                  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | +                     | 2                     |                       |                       |                       |                       |                       |                       |                       |                    |                       |                       |                       |                       |                       |                       |                       |                       |
| Urinary Bladder Hemorrhage                   | +                | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                  | +                     | +                     | +                     | +                     | +                     |                       |                       |                       |
| Inflammation                                 |                  | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                    |                       |                       |                       |                       |                       |                       |                       |                       |
| Transitional Epithelium, Necrosis            |                  | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                    |                       |                       |                       |                       |                       |                       |                       |                       |
| Transitional Epithelium, Necrosis            |                  | 4                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                    |                       |                       |                       |                       |                       |                       |                       |                       |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |    | * TOTALS |
|-----------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|----------|
|                       | 0723        | 0729  | 0664  | 0728  | 0778  | 0471  | 0717  | 0773  | 0773  | 0376  | 0767  | 0777  | 0777  | 0777  | 0666  | 0666  | 0666  | 0728  | 0663  | 0728  | 0665  | 0666  | 0666  |    |          |
| 60 MG/KG              | 00176       | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | 50 |          |
| ANIMAL ID             | 00176       | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196 | 00197 | 00198 | 50 |          |

**ALIMENTARY SYSTEM**

|                                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Inflammation                        |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Perforation                         |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |
| Periesophageal Tissue, Inflammation |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Intestine Large, Cecum              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Colon              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Rectum             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Parasite Metazoan                   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   | 3      |
| Intestine Small, Duodenum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Ileum              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Jejunum            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Liver                               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Basophilic Focus                    | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3      |
| Clear Cell Focus                    |   | X |   | X | X | X |   |   | X | X | X | X | X | X |   |   | X | X |   | X |   | X |   | 35     |
| Degeneration, Cystic                | 1 | 2 |   |   |   |   |   | 2 |   |   | 1 | 2 |   |   |   |   | 1 |   |   |   |   |   |   | 17 1.3 |
| Eosinophilic Focus                  |   | X | X |   |   | X |   |   |   |   | X | X | X |   |   |   | X | X |   | X |   |   |   | 29     |
| Fatty Change, Focal                 | 1 |   | 1 |   | 1 | 2 |   |   |   |   |   |   |   |   |   |   | 1 |   | 1 |   | 1 |   |   | 9 1.2  |
| Fatty Change, Diffuse               |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   | 3 | 1 |   |   |   |   |   |   | 5 2.0  |
| Hematopoietic Cell Proliferation    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0  |
| Hepatodiaphragmatic Nodule          |   |   |   |   |   |   | X |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | 3      |
| Inflammation                        | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 44 1.0 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>60 MG/KG       | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
|   | 0723        | 0729   | 0735   | 0741   | 0747   | 0753   | 0759   | 0805   | 0811   | 0817   | 0823   | 0829   | 0835   | 0841   | 0847   | 0853   | 0859   | 0905   | 0911   | 0917   | 0923   | 0929   | 0935   | 0941   |          |
| ANIMAL ID                               | 001766      | 001767 | 001768 | 001769 | 001770 | 001771 | 001772 | 001773 | 001774 | 001775 | 001776 | 001777 | 001778 | 001779 | 001780 | 001781 | 001782 | 001783 | 001784 | 001785 | 001786 | 001787 | 001788 | 001789 | 001790   |
| Mixed Cell Focus                        | X           |        | X      | X      | X      | X      | X      |        | X      |        | X      | X      | X      | X      | X      |        |        | X      | X      | X      | X      |        | X      |        |          |
| Vacuolization Cytoplasmic               |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |
| Bile Duct, Fibrosis                     | 2           | 2      |        | 2      | 2      |        | 1      |        | 1      | 3      |        | 2      |        | 2      | 2      | 2      | 2      | 2      | 1      | 1      | 1      | 1      | 2      | 1      |          |
| Bile Duct, Hyperplasia                  | 2           | 2      |        | 2      | 2      | 2      | 2      |        | 2      | 2      | 1      | 2      |        | 2      | 3      | 2      | 2      | 1      |        |        |        |        |        |        |          |
| Hepatocyte, Hypertrophy                 |             |        |        | 1      | 1      |        | 1      |        | 2      | 1      |        | 2      |        | 1      | 2      | 2      | 1      |        |        |        | 2      | 1      | 2      | 3      |          |
| Hepatocyte, Necrosis                    |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |
| Oval Cell, Hyperplasia                  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |
| Mesentery                               |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        |
| Fat, Necrosis                           |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        |
| Pancreas                                | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50       |
| Cyst                                    |             |        |        |        |        |        |        |        |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        | 2        |
| Infiltration Cellular, Mononuclear Cell | 1           |        |        | 1      | 2      | 2      |        |        | 2      | 1      |        |        |        |        |        |        | 1      |        |        |        | 1      | 1      |        |        | 20       |
| Metaplasia, Hepatocyte                  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        |
| Acinus, Atrophy                         |             | 3      |        | 1      |        |        |        |        |        |        |        | 2      |        | 1      |        | 2      |        |        |        |        |        |        | 2      |        | 12       |
| Salivary Glands                         | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50       |
| Stomach, Forestomach                    | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50       |
| Hyperplasia, Squamous                   |             |        |        |        |        |        |        |        | 2      | 3      |        |        |        |        |        |        |        | 2      | 2      |        |        |        | 3      |        | 11       |
| Inflammation                            |             |        |        |        |        |        |        |        | 3      | 3      |        |        |        |        |        |        |        | 3      | 2      |        |        |        | 3      |        | 7        |
| Ulcer                                   |             |        |        |        |        |        |        |        | 3      | 2      |        |        |        |        |        |        |        | 3      | 2      |        |        |        | 1      |        | 6        |
| Stomach, Glandular                      | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50       |
| Inflammation                            |             |        |        |        |        |        |        |        | 2      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        |
| Mineralization                          |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 2        |
| Necrosis                                |             |        |        |        |        |        |        |        |        | 3      |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        |
| Tongue                                  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1        |

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 + .. Tissue examined microscopically  
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 I .. Insufficient tissue  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>60 MG/KG | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |
|-----------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
|                                   | 0723        | 0729  | 0645  | 0728  | 0778  | 0471  | 0717  | 0177  | 0077  | 0077  | 0077  | 0077  | 0077  | 0077  | 0077  | 0077  | 0077  | 0077  | 0077  | 0077  |          | 0077  | 0077  |       |       |
| ANIMAL ID                         | 00176       | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196    | 00197 | 00198 | 00199 | 00200 |

**CARDIOVASCULAR SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |       |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|
| Blood Vessel              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +      | 50    |
| Aorta, Mineralization     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 1 2.0 |
| Heart                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +      | 50    |
| Cardiomyopathy            | 1 | 1 | 1 | 2 | 2 | 1 |   | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 48 1.4 |       |
| Mineralization            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 3 1.3 |
| Thrombosis                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 2 3.0 |
| Pericardium, Inflammation |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        | 1 1.0 |

**ENDOCRINE SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Adrenal Cortex            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Angiectasis               |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   | 1 |   |   |   |   |   |   |   | 4 1.0  |
| Hyperplasia               |   |   | 1 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 8 1.5  |
| Hypertrophy               |   |   |   |   |   |   | 2 |   |   |   |   | 1 |   |   | 1 |   |   |   |   |   |   | 2 |   |   | 7 1.3  |
| Necrosis                  |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Vacuolization Cytoplasmic | 3 | 1 | 3 | 1 | 1 | 1 | 2 |   | 2 | 1 | 1 | 1 |   |   | 2 | 1 |   | 2 | 2 |   | 2 | 1 | 1 | 1 | 28 1.5 |
| Adrenal Medulla           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Hyperplasia               |   |   |   | 2 | 1 | 1 |   |   |   | 1 |   |   |   |   | 1 | 2 | 2 |   |   |   | 1 | 3 |   | 2 | 18 1.6 |
| Islets, Pancreatic        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Parathyroid Gland         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 48     |
| Hyperplasia, Diffuse      |   |   |   | 2 |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 5 2.0  |
| Pituitary Gland           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Cyst                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | 1      |

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>60 MG/KG                          | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |                       |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-----------------------|
|  | 0723        | 0729  | 0645  | 0728  | 0778  | 0471  | 0717  | 0071  | 0077  | 0033  | 0073  | 0067  | 0077  | 0077  | 0077  | 0066  | 0066  | 0066  | 0072  | 0065  |          |       | 0072  | 0068                  |
| ANIMAL ID  | 00176       | 00077 | 00008 | 00009 | 00000 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001    | 00001 | 00001 | 00001                 |
| Pars Distalis, Hyperplasia                                 | 1           | 2     | 2     | 2     |       |       | 1     | 2     |       |       |       |       |       |       | 2     |       |       | 2     |       |       |          | 2     |       | 18 1.9                |
| Thyroid Gland<br>C-cell, Hyperplasia                       | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 49<br>5 1.8           |
| <b>GENERAL BODY SYSTEM</b>                                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |                       |
| NONE   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |                       |
| <b>GENITAL SYSTEM</b>                                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |                       |
| Epididymis<br>Inflammation                                 | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50<br>2 1.5           |
| Preputial Gland<br>Cyst                                    | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50<br>1               |
| Hyperplasia<br>Inflammation                                | 1           | 1     | 1     | 2     | 2     | 1     | 1     |       | 1     | 1     | 1     | 1     | 1     | 2     | 2     | 2     | 1     | 2     | 1     | 2     | 1        | 1     | 1     | 45 1.3                |
| Prostate<br>Inflammation                                   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50<br>16 1.9          |
| Pigmentation<br>Epithelium, Hyperplasia                    |             |       | 1     |       |       | 1     |       | 3     |       |       |       |       |       | 1     |       | 3     |       |       | 1     |       | 2        | 2     | 2     | 1<br>1 2.0<br>3 1.7   |
| Seminal Vesicle<br>Inflammation<br>Epithelium, Hyperplasia | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50<br>1 3.0<br>1 3.0  |
| Testes<br>Mineralization<br>Interstitial Cell, Hyperplasia | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50<br>1 2.0<br>12 1.4 |

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

|                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FISCHER 344 RATS MALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |   |   |
|                       |             | 7 | 7 | 6 | 7 | 7 | 4 | 7 | 1 | 7 | 7 | 3 | 7 | 6 | 7 | 7 | 7 | 6 | 6 | 6 | 7 | 6 | 6 |   | 6 |   |
|                       |             | 2 | 2 | 4 | 2 | 2 | 3 | 2 | 9 | 2 | 2 | 4 | 2 | 0 | 2 | 2 | 2 | 2 | 1 | 7 | 2 | 2 | 5 |   | 2 | 9 |
| 60 MG/KG              | ANIMAL ID   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                       |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                       |             | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |   |
|                       | 7           | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |   |   |
|                       | 6           | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |   |
| <b>* TOTALS</b>       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**HEMATOPOIETIC SYSTEM**

|                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               |               |               |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|---------------|---------------|
| Bone Marrow                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +             | <b>50</b>     |               |
| Hemorrhage                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>4 2.3</b>  |               |
| Hyperplasia                           | 2 | 3 | 4 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | <b>50 2.7</b> |               |               |
| Lymph Node                            |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | +             | <b>7</b>      |               |
| Mediastinal, Ectasia                  |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>3 2.7</b>  |               |
| Mediastinal, Hyperplasia, Lymphoid    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |               | <b>3 2.3</b>  |               |
| Mediastinal, Hyperplasia, Plasma Cell |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>1 3.0</b>  |               |
| Lymph Node, Mandibular                | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M             | <b>0</b>      |               |
| Lymph Node, Mesenteric                | + | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>50</b>     |               |
| Ectasia                               |   |   |   | 3 | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>2 2.5</b>  |               |
| Hyperplasia, Lymphoid                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>1 2.0</b>  |               |
| Hyperplasia, Plasma Cell              |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>1 2.0</b>  |               |
| Infiltration Cellular, Histiocyte     | 2 | 2 |   | 2 | 2 |   | 2 | 1 |   | 2 |   | 2 |   | 2 | 2 | 1 | 2 | 1 |   | 1 | 1 | 1 | 1 | <b>34 1.5</b> |               |               |
| Spleen                                | + | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>50</b>     |               |
| Congestion                            | 2 | 2 | 1 | 2 | 1 | 1 | 2 |   | 2 | 3 | 2 | 2 | 2 | 1 |   | 2 | 2 | 1 | 2 | 1 | 2 | 2 |   | 2             | <b>39 1.9</b> |               |
| Hematopoietic Cell Proliferation      | 1 | 2 | 3 | 1 | 2 | 1 | 1 | 1 |   | 2 | 1 | 1 |   | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | <b>44 1.3</b> |               |               |
| Inflammation, Suppurative             |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>2 1.5</b>  |               |
| Pigmentation                          | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 3 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 2 |   | 2 | 2 | 3 | 3 | 3             | 2             | <b>48 2.0</b> |
| Capsule, Fibrosis                     | 2 | 1 | 1 | 1 | 2 |   | 2 | 1 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 1             | <b>46 1.8</b> |               |
| Capsule, Hypertrophy, Mesothelium     | 1 |   |   | 1 | 1 |   | 1 | 1 | 1 | 1 |   | 1 |   | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1             | <b>39 1.1</b> |               |
| Lymphoid Follicle, Atrophy            |   |   | 3 | 1 |   | 2 |   | 2 | 3 | 2 |   |   |   |   |   | 1 | 2 | 2 |   |   | 2 | 2 |   |               | <b>19 2.0</b> |               |
| Red Pulp, Atrophy                     |   |   |   |   | 2 |   |   |   |   |   | 3 |   | 3 |   |   |   |   |   |   |   |   |   |   | 2             | <b>8 2.6</b>  |               |
| Thymus                                | + | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |               | <b>47</b>     |               |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS MALE<br>60 MG/KG                | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |    |     |     |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|----|-----|-----|
|  | 0723        | 0729  | 0735  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  | 0778  |          |       | 0778  |       |       |    |     |     |
| ANIMAL ID  | 00176       | 00177 | 00178 | 00179 | 00180 | 00181 | 00182 | 00183 | 00184 | 00185 | 00186 | 00187 | 00188 | 00189 | 00190 | 00191 | 00192 | 00193 | 00194 | 00195 | 00196    | 00197 | 00198 | 00199 | 00200 |    |     |     |
| Atrophy  | 3           | 2     | 2     | 3     | 3     | 2     | 3     | 2     | 3     | 4     | 3     | 3     | 2     | 2     | 3     | 2     |       | 3     | 2     | 2     | 2        | 3     | 3     | 2     | 2     | 44 | 2.5 |     |
| Hyperplasia, Lymphoid                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 1  | 3.0 |     |
| <b>INTEGUMENTARY SYSTEM</b>                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |    |     |     |
| Mammary Gland Cyst                               | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50 | 1   |     |
| Skin Cyst Epithelial Inclusion Inflammation      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50 | 1   |     |
|  |             |       |       | 3     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X        |       |       |       |       | 1  | 3.0 |     |
| <b>MUSCULOSKELETAL SYSTEM</b>                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |    |     |     |
| Bone   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50 |     |     |
| <b>NERVOUS SYSTEM</b>                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |    |     |     |
| Brain  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50 |     |     |
| <b>RESPIRATORY SYSTEM</b>                        |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       |    |     |     |
| Lung Congestion                                  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 50 | 3   | 2.7 |
| Lung Inflammation                                |             |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 1  | 1.0 |     |
| Lung Mineralization                              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 1  | 1.0 |     |
| Lung Alveolar Epithelium, Hyperplasia            |             |       |       |       |       |       |       |       |       |       |       |       |       |       | 3     |       |       |       |       |       |          |       | 3     |       |       | 6  | 2.8 |     |
| Lung Alveolus, Infiltration Cellular, Histiocyte |             |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1     |       |       | 11 | 1.1 |     |
| Lung Alveolus, Inflammation, Suppurative         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |       | 1  | 2.0 |     |
| Nose   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | +     | 49 |     |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

TDMS No. 20107 - 03  
 Test Type: CHRONIC  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
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| FISCHER 344 RATS MALE<br>60 MG/KG                       | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS  |            |            |            |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|------------|------------|------------|
|   | 0723        | 0729   | 0735   | 0741   | 0747   | 0753   | 0759   | 0805   | 0811   | 0817   | 0823   | 0829   | 0835   | 0841   | 0847   | 0853   | 0859   | 0905   | 0911   | 0917   | 0923   | 0929   | 0935   | 0941   |           | 0947       |            |            |
| ANIMAL ID   | 001766      | 001777 | 001788 | 001799 | 001800 | 001811 | 001822 | 001833 | 001844 | 001855 | 001866 | 001877 | 001888 | 001899 | 001900 | 001911 | 001922 | 001933 | 001944 | 001955 | 001966 | 001977 | 001988 | 001999 | 002000    |            |            |            |
| Foreign Body  | X           |        |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |           | <b>9</b>   |            |            |
| Inflammation  | 3           | 3      | 3      | 2      | 2      | 2      | 1      |        | 2      | 2      | 1      | 2      | 1      | 1      | 2      | 3      | 2      | 3      | 2      | 3      | 2      | 1      | 1      | 2      | 1         | <b>48</b>  | <b>1.9</b> |            |
| Glands, Olfactory Epithelium, Dilatation                | 2           | 3      | 2      | 3      | 3      | 2      | 3      | 1      | 3      | 3      | 1      | 3      | 2      | 3      | 3      | 3      | 2      | 2      | 2      | 3      | 1      | 2      | 3      | 2      | <b>49</b> | <b>2.4</b> |            |            |
| Glands, Olfactory Epithelium, Hyperplasia               | 2           | 2      | 2      | 2      | 2      | 1      | 2      | 1      | 2      | 2      | 1      | 3      | 1      | 2      | 2      | 2      | 2      | 1      | 2      | 2      | 2      | 1      | 2      | 2      | 1         | <b>48</b>  | <b>1.9</b> |            |
| Glands, Olfactory Epithelium, Metaplasia                | 1           | 1      |        | 2      | 2      |        | 1      |        | 1      | 1      |        | 2      | 1      | 1      | 2      | 1      | 2      |        | 1      | 2      |        |        | 1      |        | <b>38</b> | <b>1.5</b> |            |            |
| Glands, Olfactory Epithelium, Necrosis                  | 3           |        | 3      |        |        | 3      |        |        | 3      | 3      | 2      |        | 3      |        |        |        |        | 2      | 3      | 3      |        | 3      |        |        | 2         | <b>22</b>  | <b>2.7</b> |            |
| Glands, Respiratory Epithelium, Dilatation              | 2           | 1      | 1      | 2      | 1      | 1      | 1      |        | 1      | 2      | 1      | 1      | 1      | 2      | 1      | 1      | 2      | 1      | 1      | 2      | 1      | 1      | 2      | 1      | 2         | <b>48</b>  | <b>1.6</b> |            |
| Glands, Respiratory Epithelium, Hyperplasia             | 2           | 2      | 1      | 2      | 1      |        | 2      |        | 2      | 2      | 2      | 1      | 2      | 1      | 1      | 1      | 1      |        | 2      | 2      | 1      | 2      | 1      | 2      | 2         | <b>41</b>  | <b>1.7</b> |            |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory | 3           | 3      | 3      | 3      | 2      | 2      | 3      |        | 3      | 2      |        | 3      | 2      | 3      | 2      | 3      | 2      | 2      | 2      | 3      | 3      | 2      | 3      | 3      | 2         | <b>47</b>  | <b>2.6</b> |            |
| Glands, Transitional Epithelium, Dilatation             |             |        |        |        |        |        |        |        |        |        |        | 2      |        |        |        | 2      |        |        |        |        |        |        |        |        |           | <b>3</b>   | <b>1.7</b> |            |
| Glands, Transitional Epithelium, Hyperplasia            | 1           | 1      | 2      |        |        | 2      | 1      | 2      | 1      | 1      | 2      | 1      | 2      | 1      |        | 2      | 1      | 1      | 1      | 1      | 1      | 1      | 1      |        | 1         | <b>40</b>  | <b>1.6</b> |            |
| Nerve, Atrophy  |             |        |        | 1      | 1      |        |        |        |        | 2      |        |        |        |        | 1      |        |        |        |        | 2      |        |        | 1      |        |           | <b>15</b>  | <b>1.3</b> |            |
| Olfactory Epithelium, Degeneration                      | 2           | 3      | 3      | 2      | 2      | 2      | 1      |        | 3      | 2      |        | 3      | 2      | 2      | 2      | 3      | 2      | 2      | 1      | 3      | 2      | 2      | 3      | 1      | <b>47</b> | <b>2.1</b> |            |            |
| Olfactory Epithelium, Hyperplasia, Basal Cell           | 1           |        | 2      | 1      | 1      | 2      |        | 1      | 2      | 1      | 1      | 1      | 1      |        |        |        |        | 2      | 2      | 1      | 1      |        | 1      | 2      | 1         | <b>38</b>  | <b>1.3</b> |            |
| Olfactory Epithelium, Metaplasia, Respiratory           | 2           | 3      | 2      | 2      | 2      |        |        |        | 1      | 1      |        | 2      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 2      |        | 1      | 2      | 1         | <b>40</b>  | <b>1.3</b> |            |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   |             |        |        |        |        |        | 1      |        |        |        |        |        | 1      |        | 1      | 1      |        |        |        |        |        |        |        |        |           | <b>8</b>   | <b>1.0</b> |            |
| Respiratory Epithelium, Hyperplasia                     | 1           | 1      | 1      | 2      | 3      | 2      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 2      | 1      | 2      | 1      | 1      | 2      | 2      | 1      | 1      | 1      | 1      | 1         | <b>49</b>  | <b>1.6</b> |            |
| Respiratory Epithelium, Ulcer                           | 2           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |           | <b>1</b>   | <b>2.0</b> |            |
| Transitional Epithelium, Hyperplasia                    | 2           | 1      | 3      | 2      | 1      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 2      | 1      | 1      | 2      |        | 2      | 1      | 3      | 1      | 2      | 2      | 2      | 1         | 2          | <b>46</b>  | <b>1.7</b> |
| Trachea   | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +         | <b>50</b>  |            |            |
| Inflammation  |             | 1      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1         | <b>3</b>   | <b>1.7</b> |            |
| Perforation   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |           | <b>1</b>   |            |            |
| Peritracheal Tissue, Inflammation                       |             |        |        |        |        |        |        |        | 3      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |           | <b>2</b>   | <b>3.0</b> |            |

**SPECIAL SENSES SYSTEM**

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |            |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|
| Eye                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | <b>50</b> |            |
| Lens, Degeneration | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1</b>  | <b>3.0</b> |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
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Date Report Requested: 02/28/2011  
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 Lab: BAT

| FISCHER 344 RATS MALE<br>60 MG/KG                 | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS     |             |        |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|-------------|--------|
|   | 0723        | 0729   | 0735   | 0741   | 0747   | 0753   | 0759   | 0805   | 0811   | 0817   | 0823   | 0829   | 0835   | 0841   | 0847   | 0853   | 0859   | 0905   | 0911   | 0917   | 0923   | 0929   | 0935   |              |             |        |
| ANIMAL ID   | 001766      | 001767 | 001768 | 001769 | 001770 | 001771 | 001772 | 001773 | 001774 | 001775 | 001776 | 001777 | 001778 | 001779 | 001780 | 001781 | 001782 | 001783 | 001784 | 001785 | 001786 | 001787 | 001788 |              |             |        |
| Retina, Atrophy                                   | 3           |        |        |        |        |        |        |        |        | 2      |        |        |        |        |        |        |        |        |        |        |        |        |        | 3 2.3        |             |        |
| Harderian Gland Inflammation                      | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50<br>10 1.3 |             |        |
| Zymbal's Gland                                    | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50           |             |        |
| <b>URINARY SYSTEM</b>                             |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |              |             |        |
| Kidney Cyst                                       | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50<br>1      |             |        |
| Mineralization                                    | 1           | 1      | 2      | 1      | 1      | 1      | 1      | 1      | 2      | 1      |        | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 1      | 49 1.1       |             |        |
| Nephropathy                                       | 2           | 4      | 3      | 4      | 3      | 2      | 3      | 1      | 4      | 4      | 1      | 4      | 2      | 2      | 2      | 4      | 2      | 1      | 2      | 2      | 3      | 2      | 4      | 4            | 2           | 49 2.7 |
| Pigmentation                                      |             |        | 2      | 1      | 2      | 2      | 1      | 2      |        | 1      | 1      |        | 1      | 1      | 2      | 2      | 2      | 3      | 2      | 2      | 1      | 2      | 2      | 1            | 1           | 44 1.6 |
| Pelvis, Dilatation                                |             |        | 2      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |              | 3 2.3       |        |
| Pelvis, Transitional Epithelium, Hyperplasia      | 1           |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1      |        |        |        |        |        |        | 1      |              | 5 1.0       |        |
| Ureter Inflammation                               |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |              | 1<br>1 2.0  |        |
| Urinary Bladder Hemorrhage                        | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +            | 50<br>2 3.0 |        |
| Urinary Bladder Inflammation                      |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |              | 2 3.0       |        |
| Urinary Bladder Transitional Epithelium, Necrosis |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |              | 1 4.0       |        |

\*\*\* END OF MALE DATA \*\*\*

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked





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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>0 MG/KG | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID             | females<br>(cont...) |
|------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|----------------------|
|                                    | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>9 | 0<br>6<br>4<br>6 | 0<br>6<br>8<br>7 | 0<br>6<br>7<br>3 | 0<br>7<br>2<br>0 | 0<br>7<br>2<br>9 | 0<br>5<br>4<br>7 | 0<br>6<br>6<br>0 | 0<br>6<br>9<br>2 | 0<br>6<br>4<br>1 | 0<br>6<br>6<br>0 | 0<br>7<br>3<br>8 | 0<br>7<br>2<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>8 | 0<br>7<br>3<br>9 | 0<br>5<br>7<br>0 | 0<br>7<br>2<br>4 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>0 | 0<br>6<br>7<br>5 |                       |                      |
|                                    | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0                | 0<br>0<br>2<br>0<br>1 |                      |

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Mesentery<br>Fat, Necrosis   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |
| Pancreas<br>Cyst<br>Fibrosis<br>Infiltration Cellular, Mononuclear Cell<br>Acinus, Atrophy<br>Duct, Fibrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |
| Salivary Glands  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |
| Stomach, Forestomach<br>Hyperplasia, Squamous<br>Inflammation<br>Ulcer                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |
| Stomach, Glandular<br>Mineralization   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |   |
| Tongue   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | + |

**CARDIOVASCULAR SYSTEM**

|                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |  |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--|
| Blood Vessel            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |        |  |
| Heart<br>Cardiomyopathy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1<br>2 |  |

**ENDOCRINE SYSTEM**

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>0 MG/KG | DAY ON TEST |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | ANIMAL ID                | females<br>(cont...) |
|------------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------------|----------------------|
|                                    | 078         | 079 | 066 | 067 | 068 | 069 | 070 | 071 | 055 | 066 | 066 | 067 | 067 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 055 | 077 | 077 | 077 | 066 |                          |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 000000000000000000000000 |                      |
| Adrenal Cortex                     | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   |                          |                      |
| Angiectasis                        | 2           |     | 1   | 1   | 2   | 2   | 2   |     |     | 2   | 1   | 2   | 2   | 2   | 1   |     | 2   | 2   |     | 3   |     | 1   | 2   | 3   | 2   |                          |                      |
| Degeneration, Cystic               |             | 1   |     |     |     |     |     |     |     | 1   |     |     |     | 3   |     |     | 2   |     | 3   |     |     |     |     | 2   |     |                          |                      |
| Hyperplasia                        |             |     |     |     | 1   |     | 1   |     |     |     | 2   | 2   |     | 2   |     |     | 1   | 1   |     |     | 2   | 2   | 2   | 2   | 1   |                          |                      |
| Hypertrophy                        |             | 1   |     | 1   | 1   | 3   |     |     |     | 1   |     |     |     |     |     |     |     |     |     |     | 2   |     |     |     |     |                          |                      |
| Necrosis                           |             |     |     |     |     |     |     |     | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                          |                      |
| Vacuolization Cytoplasmic          |             | 2   | 2   | 1   | 1   | 2   | 1   |     |     |     | 1   | 1   |     |     |     |     | 2   |     |     |     |     | 2   | 2   |     | 3   |                          |                      |
| Adrenal Medulla                    | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   |                          |                      |
| Hyperplasia                        |             |     |     |     |     |     | 2   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                          |                      |
| Islets, Pancreatic                 | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   |                          |                      |
| Parathyroid Gland                  | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   |                          |                      |
| Hyperplasia, Diffuse               |             |     |     |     |     |     | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                          |                      |
| Pituitary Gland                    | +           | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   |                          |                      |
| Cyst                               |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | X   |                          |                      |
| Pars Distalis, Angiectasis         |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                          |                      |
| Pars Distalis, Cyst                |             |     |     |     |     |     |     |     |     |     |     | X   |     |     | X   |     |     |     |     |     |     |     |     | X   |     |                          |                      |
| Pars Distalis, Hyperplasia         |             |     |     |     |     |     | 4   |     |     |     |     |     |     |     |     |     |     | 2   |     |     |     |     |     |     | 2   |                          |                      |
| Thyroid Gland                      | +           | +   | +   | +   | +   | +   | +   | +   | A   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   | +   |                          |                      |
| C-cell, Hyperplasia                | 1           | 1   |     |     |     | 2   | 2   |     |     |     | 1   |     | 1   | 1   | 1   | 1   |     | 2   | 1   |     | 1   | 3   | 1   | 1   |     |                          |                      |
| Follicle, Cyst                     |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                          |                      |
| Follicular Cell, Hyperplasia       |             |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |                          |                      |

**GENERAL BODY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

| FISCHER 344 RATS FEMALE<br>0 MG/KG | DAY ON TEST |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | ANIMAL ID | females<br>(cont...) |                      |
|------------------------------------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|----------------------|----------------------|
|                                    | 078         | 079 | 066 | 067 | 068 | 073 | 074 | 055 | 066 | 067 | 068 | 073 | 074 | 077 | 078 | 079 | 080 | 081 | 082 | 083 |           |                      | 084                  |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 001                  | females<br>(cont...) |
|                                    | 7           | 7   | 6   | 6   | 6   | 7   | 7   | 5   | 6   | 6   | 6   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7         | 002                  |                      |
|                                    | 2           | 2   | 4   | 8   | 7   | 3   | 2   | 4   | 9   | 4   | 9   | 3   | 2   | 3   | 2   | 3   | 2   | 3   | 2   | 3   | 7         | 003                  |                      |
|                                    | 8           | 9   | 6   | 7   | 3   | 0   | 9   | 7   | 0   | 2   | 1   | 0   | 8   | 0   | 9   | 0   | 9   | 8   | 9   | 0   | 4         | 004                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 005                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 006                  |                      |
|                                    | 2           | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2         | 007                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 2   | 2         | 008                  |                      |
|                                    | 1           | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 0   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 0   | 1         | 009                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 010                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 011                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 012                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 013                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 014                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 015                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 016                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 017                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 018                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 019                  |                      |
|                                    | 0           | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0         | 020                  |                      |

**GENITAL SYSTEM**

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst           | X |   |   |   | X |   |   |   |   |   |   | X | X | X | X |   | X |   |   |   |   |   | X |
| Hyperplasia    | 1 | 1 |   |   |   |   |   |   | 1 |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation   | 1 | 1 | 2 |   | 1 |   | 2 |   |   | 2 | 1 |   |   | 1 | 2 | 1 |   |   | 2 |   | 1 | 2 | 1 |
| Ovary          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst           |   | X |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Uterus         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Inflammation   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |
| Vagina         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**HEMATOPOIETIC SYSTEM**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                       |   |   | 4 |   |   |   |   | 3 |   |   |   | 3 |   |   | 3 |   |   | 2 |   |   |   |   |   |
| Myelofibrosis                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node                        |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Ectasia              |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular            | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mesenteric            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Lymphoid             |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |
| Infiltration Cellular, Histiocyte |   |   |   | 2 | 2 | 2 | 1 | 1 |   |   |   |   | 1 | 1 | 1 | 2 |   |   | 2 |   | 1 | 1 |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
A .. Autolysis precludes evaluation  
BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

TDMS No. 20107 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

N,N-Dimethyl-p-toluidine

CAS Number: 99-97-8

Date Report Requested: 02/28/2011

Time Report Requested: 11:17:44

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

Lab: BAT

| FISCHER 344 RATS FEMALE<br>0 MG/KG | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | females<br>(cont...)  |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
|                                    | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>6<br>4<br>6      | 0<br>6<br>8<br>7      | 0<br>6<br>7<br>3      | 0<br>7<br>2<br>0      | 0<br>7<br>2<br>9      | 0<br>5<br>4<br>7      | 0<br>6<br>9<br>0      | 0<br>6<br>4<br>2      | 0<br>6<br>9<br>1      | 0<br>6<br>3<br>0      | 0<br>7<br>2<br>8      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>9      | 0<br>7<br>3<br>9      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>5<br>7<br>4      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>0      | 0<br>7<br>3<br>1      | 0<br>7<br>2<br>2      | 0<br>7<br>3<br>3      |                       | 0<br>7<br>2<br>4      | 0<br>6<br>3<br>5      |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| ANIMAL ID                          | 0<br>0<br>2<br>0<br>1 | 0<br>0<br>2<br>0<br>2 | 0<br>0<br>2<br>0<br>3 | 0<br>0<br>2<br>0<br>4 | 0<br>0<br>2<br>0<br>5 | 0<br>0<br>2<br>0<br>6 | 0<br>0<br>2<br>0<br>7 | 0<br>0<br>2<br>0<br>8 | 0<br>0<br>2<br>0<br>9 | 0<br>0<br>2<br>1<br>0 | 0<br>0<br>2<br>1<br>1 | 0<br>0<br>2<br>1<br>2 | 0<br>0<br>2<br>1<br>3 | 0<br>0<br>2<br>1<br>4 | 0<br>0<br>2<br>1<br>5 | 0<br>0<br>2<br>1<br>6 | 0<br>0<br>2<br>1<br>7 | 0<br>0<br>2<br>1<br>8 | 0<br>0<br>2<br>2<br>9 | 0<br>0<br>2<br>2<br>0 | 0<br>0<br>2<br>2<br>1 | 0<br>0<br>2<br>2<br>2 | 0<br>0<br>2<br>2<br>3 | 0<br>0<br>2<br>2<br>4 | 0<br>0<br>2<br>2<br>5 | 0<br>0<br>2<br>2<br>6 | 0<br>0<br>2<br>2<br>7 | 0<br>0<br>2<br>2<br>8 | 0<br>0<br>2<br>2<br>9 | 0<br>0<br>2<br>2<br>0 | 0<br>0<br>2<br>2<br>1 | 0<br>0<br>2<br>2<br>2 | 0<br>0<br>2<br>2<br>3 | 0<br>0<br>2<br>2<br>4 | 0<br>0<br>2<br>2<br>5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Spleen                             | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + | + | + | + | + |   |   |   |   |   |   |   |   |  |  |
| Hematopoietic Cell Proliferation   | 2                     |                       |                       |                       | 1                     | 1                     | 1                     |                       |                       |                       | 1                     | 2                     | 1                     | 1                     | 2                     | 2                     |                       | 2                     | 2                     | 1                     | 1                     |                       | 1                     |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Necrosis                           |                       |                       |                       |                       |                       |                       |                       |                       | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Pigmentation                       | 3                     | 3                     | 1                     | 2                     | 2                     | 2                     | 1                     |                       |                       |                       | 3                     | 2                     | 1                     | 2                     | 2                     | 2                     | 1                     | 2                     | 3                     | 1                     | 2                     | 3                     | 3                     | 3                     | 3                     | 2                     | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Capsule, Fibrosis                  |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Capsule, Hypertrophy, Mesothelium  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Lymphoid Follicle, Atrophy         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Thymus                             | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + | + | + | + | + | + | + |   |   |   |   |   |   |  |  |
| Atrophy                            | 2                     | 3                     | 3                     | 2                     | 3                     | 3                     | 2                     | 2                     | 3                     | 2                     | 2                     | 3                     | 2                     |                       |                       |                       |                       | 2                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <b>INTEGUMENTARY SYSTEM</b>        |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Mammary Gland                      | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |   |  |  |
| Cyst                               |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Hyperplasia                        | 1                     | 1                     |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Skin                               | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |  |
| <b>MUSCULOSKELETAL SYSTEM</b>      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Bone                               | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| <b>NERVOUS SYSTEM</b>              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Brain                              | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| <b>RESPIRATORY SYSTEM</b>          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Lung                               | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Fibrosis                           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS FEMALE |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | ANIMAL ID | females<br>(cont...) |
|-------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|----------------------|
|             | 0<br>7<br>2<br>8        | 0<br>7<br>2<br>9      | 0<br>6<br>4<br>6      | 0<br>6<br>8<br>7      | 0<br>6<br>7<br>3      | 0<br>7<br>2<br>0      | 0<br>7<br>2<br>9      | 0<br>5<br>4<br>7      | 0<br>6<br>9<br>0      | 0<br>6<br>4<br>2      | 0<br>6<br>9<br>1      | 0<br>7<br>2<br>0      | 0<br>7<br>3<br>8      | 0<br>7<br>2<br>0      | 0<br>7<br>3<br>9      | 0<br>7<br>2<br>0      | 0<br>7<br>2<br>9      | 0<br>7<br>3<br>0      | 0<br>5<br>7<br>4      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>0      | 0<br>7<br>3<br>4      | 0<br>7<br>2<br>5      |                       |           |                      |
| 0 MG/KG     | 0<br>0<br>2<br>0<br>1   | 0<br>0<br>0<br>0<br>2 | 0<br>0<br>0<br>0<br>3 | 0<br>0<br>0<br>0<br>4 | 0<br>0<br>0<br>0<br>5 | 0<br>0<br>0<br>0<br>6 | 0<br>0<br>0<br>0<br>7 | 0<br>0<br>0<br>0<br>8 | 0<br>0<br>0<br>0<br>9 | 0<br>0<br>0<br>0<br>0 | 0<br>0<br>0<br>0<br>1 | 0<br>0<br>0<br>0<br>2 | 0<br>0<br>0<br>0<br>3 | 0<br>0<br>0<br>0<br>4 | 0<br>0<br>0<br>0<br>5 | 0<br>0<br>0<br>0<br>6 | 0<br>0<br>0<br>0<br>7 | 0<br>0<br>0<br>0<br>8 | 0<br>0<br>0<br>0<br>9 | 0<br>0<br>0<br>0<br>0 | 0<br>0<br>0<br>0<br>1 | 0<br>0<br>0<br>0<br>2 | 0<br>0<br>0<br>0<br>3 | 0<br>0<br>0<br>0<br>4 | 0<br>0<br>0<br>0<br>5 |           |                      |

Inflammation 1  
 Metaplasia, Squamous  
 Alveolar Epithelium, Hyperplasia 1  
 Alveolus, Infiltration Cellular, Histiocyte 1 1 1 1 1

Nose +  
 Foreign Body X X  
 Inflammation 1 1 1 1 1 1 1 2 1  
 Glands, Respiratory Epithelium, Dilatation 1 1  
 Glands, Respiratory Epithelium, Hyperplasia 1 2 1 1  
 Glands, Respiratory Epithelium, Metaplasia, Respiratory 1 1 1 1  
 Nasolacrimal Duct, Inflammation 3  
 Olfactory Epithelium, Accumulation, Hyaline Droplet 1 1 2 2 2 2 2 2 2 1 2 3 2 1 1 2 2 2 3 1 4 2 1  
 Olfactory Epithelium, Metaplasia, Respiratory 1  
 Respiratory Epithelium, Accumulation, Hyaline Droplet 1 1 1 1 2 2 2 1 1 1 2 2 1 1 1 3 1 3 2 2 1  
 Respiratory Epithelium, Hyperplasia 1 1 1 1 1

Trachea +

**SPECIAL SENSES SYSTEM**

Ear +

Eye +  
 Cataract 3  
 Ciliary Body, Cornea, Inflammation  
 Retina, Atrophy 4

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:  
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate  
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | ANIMAL ID | females<br>(cont...) |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|
|                         | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |                      |
| 0 MG/KG                 | 7           | 7 | 6 | 6 | 6 | 7 | 7 | 5 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 6 | 6 | 0         |                      |
|                         | 2           | 2 | 4 | 8 | 7 | 3 | 2 | 4 | 9 | 4 | 9 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 7 | 2 | 2 | 3 | 9 | 0         |                      |
|                         | 8           | 9 | 6 | 7 | 3 | 0 | 9 | 7 | 0 | 2 | 1 | 0 | 8 | 0 | 9 | 0 | 9 | 8 | 9 | 0 | 4 | 8 | 9 | 0 | 8 | 0         |                      |
|                         | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         |                      |
|                         | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         |                      |
|                         | 2           | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0         |                      |
|                         | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 0 |           |                      |
|                         | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 0 |           |                      |

|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Harderian Gland Inflammation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|                              | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Accumulation, Hyaline Droplet                |   | 1 |   | 1 | 1 |   | 1 |   |   |   | 1 |   | 1 |   | 1 |   | 1 | 1 |   | 1 | 1 |   | 1 | 1 |   |  |
| Infarct                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Mineralization                               | 1 | 1 | 1 | 1 | 1 | 1 |   |   | 2 |   | 1 | 1 | 1 | 1 |   |   | 1 | 1 | 1 | 1 |   |   | 1 | 1 |   |  |
| Nephropathy                                  | 1 | 1 |   |   | 1 |   |   |   |   |   | 1 |   |   |   | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 |   | 1 | 3 |  |
| Pigmentation                                 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 |   | 1 | 1 |  |
| Papilla, Fibrosis                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Papilla, Inflammation                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |  |
| Pelvis, Inflammation                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |  |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Renal Tubule, Dilatation                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Renal Tubule, Hyperplasia                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |  |
| Urinary Bladder                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS FEMALE |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |
|-------------|-------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
|             | 0730                    | 0732   | 0738   | 0739   | 0742   | 0743   | 0748   | 0750   | 0753   | 0755   | 0758   | 0760   | 0763   | 0765   | 0768   | 0770   | 0773   | 0775   | 0778   | 0780   | 0783   | 0785   | 0788   | 0790   |          |
| 0 MG/KG     | 002226                  | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 50       |
| ANIMAL ID   | 002226                  | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 000222 | 50       |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Large, Colon                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50<br>4 |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50      |
| Angiectasis                                  |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0   |
| Basophilic Focus                             | X | X | X | X | X | X | X | X | X | X | X | X |   | X | X | X | X | X | X |   | X | X | X |   | 46      |
| Clear Cell Focus                             | X |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | 7       |
| Eosinophilic Focus                           | X |   | X |   | X | X | X |   |   |   |   |   |   | X |   | X |   |   |   |   | X |   | X |   | 18      |
| Fatty Change, Focal                          | 1 |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |   |   | 1 |   | 8 1.4   |
| Fatty Change, Diffuse                        |   |   |   |   |   |   |   |   | 1 | 2 |   |   |   |   |   |   | 2 |   |   |   | 2 |   |   |   | 9 1.6   |
| Hepatodiaphragmatic Nodule                   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 3       |
| Inflammation                                 | 1 |   | 1 | 1 | 1 | 1 |   | 1 |   | 1 | 1 | 2 |   | 1 | 1 | 1 |   | 1 | 1 | 1 |   | 1 | 1 | 1 | 38 1.1  |
| Mixed Cell Focus                             | X |   |   |   | X |   |   |   | X |   |   |   |   |   | X | X |   |   | X |   |   | X |   |   | 14      |
| Bile Duct, Fibrosis                          | 1 | 2 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   | 6 1.2   |
| Bile Duct, Hyperplasia                       | 1 | 3 |   |   | 1 |   | 1 |   |   |   |   |   |   | 2 |   |   |   |   |   | 2 | 1 |   |   |   | 10 1.6  |
| Oval Cell, Hyperplasia                       |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 2 2.0   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>0 MG/KG                                     | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |                 |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|-----------------|
|  | 0730        | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   | 0730   |          | 0730            |
| ANIMAL ID  | 002226      | 002227 | 002228 | 002229 | 002230 | 002231 | 002232 | 002233 | 002234 | 002235 | 002236 | 002237 | 002238 | 002239 | 002240 | 002241 | 002242 | 002243 | 002244 | 002245 | 002246 | 002247 | 002248   |                 |
| Mesentery<br>Fat, Necrosis   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 8<br>8 3.0      |
| Pancreas<br>Cyst   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 50<br>5         |
| Pancreas<br>Fibrosis   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 1 2.0           |
| Pancreas<br>Infiltration Cellular, Mononuclear Cell<br>Acinus, Atrophy |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 13 1.5          |
| Pancreas<br>Duct, Fibrosis   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 14 1.4<br>1 2.0 |
| Salivary Glands  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 50              |
| Stomach, Forestomach<br>Hyperplasia, Squamous                          |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 50<br>5 1.8     |
| Stomach, Forestomach<br>Inflammation                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 5 2.2           |
| Stomach, Forestomach<br>Ulcer  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 5 2.4           |
| Stomach, Glandular<br>Mineralization                                   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 50<br>1 1.0     |
| Tongue   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 1               |
| <b>CARDIOVASCULAR SYSTEM</b>   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |                 |
| Blood Vessel   |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 50              |
| Heart<br>Cardiomyopathy  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          | 50<br>36 1.1    |
| <b>ENDOCRINE SYSTEM</b>  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |                 |

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 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>0 MG/KG | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |
|------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
|                                    | 0730        | 0739 | 0778 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 |          |
| ANIMAL ID                          | 0022        | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 |          |
| Adrenal Cortex                     | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50   |          |
| Angiectasis                        | 2           |      | 1    | 2    | 2    | 2    | 1    |      | 1    | 2    | 2    | 2    | 2    | 1    | 2    | 1    |      | 2    |      | 2    | 2    |      | 2    | 2    |          |
| Degeneration, Cystic               |             |      |      |      |      |      |      |      |      | 2    |      | 2    |      |      |      |      |      |      |      |      |      |      |      | 8    |          |
| Hyperplasia                        |             | 2    | 2    | 1    |      | 2    | 1    |      | 2    |      | 2    |      |      | 1    |      | 1    |      | 1    |      | 2    |      | 2    | 2    | 3    |          |
| Hypertrophy                        | 2           |      | 1    | 4    |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    | 11   |          |
| Necrosis                           |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |          |
| Vacuolization Cytoplasmic          |             | 2    |      |      | 2    |      |      | 1    | 1    |      | 1    | 1    |      | 1    | 1    | 1    |      | 1    |      |      | 3    | 2    | 2    | 1    |          |
| Adrenal Medulla                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50   |          |
| Hyperplasia                        |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      | 4    |          |
| Islets, Pancreatic                 | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50   |          |
| Parathyroid Gland                  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50   |          |
| Hyperplasia, Diffuse               |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |          |
| Pituitary Gland                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 50   |          |
| Cyst                               | X           | X    |      |      | X    |      | X    |      | X    |      |      | X    |      | X    | X    |      |      |      | X    |      |      |      | X    | 11   |          |
| Pars Distalis, Angiectasis         |             |      |      | 3    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |          |
| Pars Distalis, Cyst                |             |      |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 4    |          |
| Pars Distalis, Hyperplasia         | 3           | 3    |      | 1    | 3    |      | 1    |      | 2    |      | 3    | 3    |      |      |      |      |      | 3    |      | 3    |      |      | 2    | 14   |          |
| Thyroid Gland                      | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | 49   |          |
| C-cell, Hyperplasia                |             | 2    | 2    |      |      |      |      | 1    | 1    |      | 1    | 2    | 1    | 2    |      | 2    | 1    |      |      | 2    | 3    | 1    | 3    | 29   |          |
| Follicle, Cyst                     |             |      | X    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |          |
| Follicular Cell, Hyperplasia       |             |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |          |

**GENERAL BODY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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TDMS No. 20107 - 03  
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 Species/Strain: RATS/F 344/N

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 CAS Number: 99-97-8

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 Lab: BAT

| FISCHER 344 RATS FEMALE<br>0 MG/KG | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |       |
|------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
|                                    | 0730        | 0739  | 0778  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  | 0779  |          | 0779  |       |       |       |
| ANIMAL ID                          | 00226       | 00227 | 00228 | 00229 | 00230 | 00231 | 00232 | 00233 | 00234 | 00235 | 00236 | 00237 | 00238 | 00239 | 00240 | 00241 | 00242 | 00243 | 00244 | 00245 | 00246    | 00247 | 00248 | 00249 | 00250 |

**GENITAL SYSTEM**

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Clitoral Gland Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Hyperplasia         |   |   |   |   |   |   |   | 3 |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   | 11    |
| Inflammation        |   | 1 |   |   |   |   | 1 | 2 |   |   |   |   |   | 2 | 2 | 1 |   |   |   |   |   |   |   |   |   | 9 1.6 |
| Ovary Cyst          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
|                     | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4     |
| Uterus Cyst         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50    |
| Inflammation        |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   | 1     |
|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1.0 |
| Vagina              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1     |

**HEMATOPOIETIC SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow Hyperplasia  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Myelofibrosis  |   | 3 |   |   |   | 4 |   |   | 3 | 3 |   | 1 | 3 |   | 4 | 2 | 2 |   | 3 | 4 | 1 |   |   |   | 3 | 18 2.8 |
|  |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Lymph Node Mediastinal, Ectasia  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2      |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |
| Lymph Node, Mandibular   | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0      |
| Lymph Node, Mesenteric Hyperplasia, Lymphoid Infiltration Cellular, Histiocyte | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
|  | 1 |   | 1 |   | 1 | 1 |   | 1 |   |   | 1 |   | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 |   | 2 | 30 1.3 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
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 Species/Strain: RATS/F 344/N

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 Lab: BAT

| FISCHER 344 RATS FEMALE<br>0 MG/KG | DAY ON TEST |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | * TOTALS |
|------------------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
|                                    | 0730        | 0732   | 0738   | 0739   | 0742   | 0743   | 0748   | 0750   | 0752   | 0755   | 0756   | 0757   | 0758   | 0760   | 0763   | 0767   | 0768   | 0770   | 0772   | 0773   | 0777   | 0778   | 0779   | 0780   |          |
| ANIMAL ID                          | 002226      | 002227 | 002228 | 002229 | 002230 | 002231 | 002232 | 002233 | 002234 | 002235 | 002236 | 002237 | 002238 | 002239 | 002240 | 002241 | 002242 | 002243 | 002244 | 002245 | 002246 | 002247 | 002248 | 002249 |          |
| Spleen                             | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50     |          |
| Hematopoietic Cell Proliferation   | 2           |        | 1      | 2      | 2      | 2      | 1      |        | 3      |        | 2      |        |        | 1      | 2      | 1      | 2      |        | 1      | 2      |        | 2      | 2      | 32 1.6 |          |
| Necrosis                           |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 3      |        |        |        | 2 3.0  |          |
| Pigmentation                       | 2           | 1      | 3      | 3      | 2      |        | 2      | 1      | 2      |        | 2      | 2      | 3      |        | 1      | 2      | 3      | 2      | 1      | 2      | 2      | 2      | 1      | 2      | 44 2.0   |
| Capsule, Fibrosis                  |             | 1      |        |        |        |        |        | 1      |        |        |        |        |        | 2      |        |        |        | 1      |        |        | 1      |        |        |        | 8 1.1    |
| Capsule, Hypertrophy, Mesothelium  |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1 1.0    |
| Lymphoid Follicle, Atrophy         |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 1 2.0    |
| Thymus                             | +           | +      | +      | +      | +      | M      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 47     |          |
| Atrophy                            | 4           |        | 2      | 2      | 3      |        | 2      |        | 2      | 3      | 3      | 2      | 3      | 2      | 3      | 3      | 2      | 3      | 3      | 2      | 3      | 3      | 2      | 3      | 45 2.6   |
| <b>INTEGUMENTARY SYSTEM</b>        |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |
| Mammary Gland                      | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50     |          |
| Cyst                               |             |        |        | X      |        |        |        |        |        |        |        |        |        |        |        |        |        |        | X      |        |        |        |        | 4      |          |
| Hyperplasia                        |             |        |        | 2      |        |        |        |        |        |        |        |        |        | 1      |        | 1      | 2      |        |        |        |        |        |        | 9 1.2  |          |
| Skin                               | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50     |          |
| <b>MUSCULOSKELETAL SYSTEM</b>      |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |
| Bone                               | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50     |          |
| <b>NERVOUS SYSTEM</b>              |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |
| Brain                              | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50     |          |
| <b>RESPIRATORY SYSTEM</b>          |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |          |
| Lung                               | +           | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | +      | 50     |          |
| Fibrosis                           |             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | 2      |        |        |        |        |        | 1 2.0  |          |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST   | FISCHER 344 RATS FEMALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
|---|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|---|---|----|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|-----|---|---|---|---|----|---|---|---|---|---|-----|---|---|---|---|---|---|---|-----|---|----|-----|---|---|---|-----|---|----|-----|--|---|-----|
|   | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          | 0 |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| 0 MG/KG   | 7                       | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 6 | 7        | 7 | 7 | 7 | 7 | 7 |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
|   | 3                       | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 4 | 0 | 2 | 3 | 0 | 7 | 3 | 2 | 0 | 8 | 3 | 2 | 3        | 1 | 2 | 2 | 2 | 2 |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| ANIMAL ID   | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 | 0 | 0 | 0 |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
|   | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 | 0 | 0 | 0 |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
|   | 2                       | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2        | 2 | 2 | 2 | 2 | 2 |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
|   | 2                       | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4        | 4 | 4 | 4 | 4 | 5 |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
|   | 6                       | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6        | 7 | 8 | 9 | 0 |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
|   |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Inflammation  |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   | 1 |   |          |   |   |   |   |   | 3  | 1.3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Metaplasia, Squamous                                    |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   | 2 |   |          |   |   |   |   |   | 2  | 1.5 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Alveolar Epithelium, Hyperplasia                        |                         |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   | 2 |   |   |   | 2 |          |   |   | 1 |   |   | 5  | 1.8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Alveolus, Infiltration Cellular, Histiocyte             |                         |   |   |   |   | 1 | 1 |   | 1 |   |   |   |   |   |   | 1 |   |   |   |   |          |   |   |   |   |   | 11 | 1.0 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Nose  |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   | 50 |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Foreign Body  |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   | X  | 3   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Inflammation  |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   | 1  | 1   | 1 | 1 | 3 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1  | 1 | 23  | 1.3 |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Glands, Respiratory Epithelium, Dilatation              |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   | 5   | 1.0 |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Glands, Respiratory Epithelium, Hyperplasia             |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   | 6   | 1.2 |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   | 17  | 1.1 |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Nasolacrimal Duct, Inflammation                         |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 | 3.0 |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   | 3   | 1   | 2 | 2 | 2 | 2 | 2  | 1 | 2 | 2 | 1 | 2 | 1   | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1   | 1 | 43 | 1.7 |   |   |   |     |   |    |     |  |   |     |
| Olfactory Epithelium, Metaplasia, Respiratory           |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   | 2 | 1 | 1 | 2  | 1 | 1 | 1 | 1 | 1 | 1   | 1 | 1 | 1 | 1 | 2 |   |   |     |   |    |     |   |   | 4 | 1.5 |   |    |     |  |   |     |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   | 2 | 1  | 1 | 2 | 1 | 1 | 1 | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1   | 1 | 1  | 1   | 1 | 1 | 1 | 1   | 1 | 35 | 1.4 |  |   |     |
| Respiratory Epithelium, Hyperplasia                     |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   | 1 | 1  |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   | 10 | 1.0 |  |   |     |
| Trachea   |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   | 50 |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| <b>SPECIAL SENSES SYSTEM</b>                            |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Ear   |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Eye   |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 50 |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Cataract  |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |   |     |     |   |   |   |   |    |   |   |   |   | 3 | 3.0 |   |   |   |   |   |   |   |     |   |    |     |   |   |   |     |   |    |     |  |   |     |
| Ciliary Body, Cornea, Inflammation                      |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   |   |    |   |   |   |   |   |     |   |   |   |   |   | 4 |   |     |   |    |     |   |   |   |     |   |    |     |  | 1 | 4.0 |
| Retina, Atrophy   |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |          |   |   |   |   |   |    |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |     |     |   |   |   | 3 |    |   |   |   |   |   |     |   |   |   |   |   |   | 2 | 3.5 |   |    |     |   |   |   |     |   |    |     |  |   |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
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 Test Type: CHRONIC  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

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

| FISCHER 344 RATS FEMALE | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | females<br>(cont...) |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
|                         | 0729        | 0729 | 0729 | 0723 | 0723 | 0722 | 0722 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 | 0721 |           |                      |
| 6 MG/KG                 | 0051        | 0052 | 0053 | 0054 | 0055 | 0056 | 0057 | 0058 | 0059 | 0060 | 0061 | 0062 | 0063 | 0064 | 0065 | 0066 | 0067 | 0068 | 0069 | 0070 | 0071 | 0072 | 0073 | 0074 | 0075 |           |                      |

**ALIMENTARY SYSTEM**

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon<br>Parasite Metazoan       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum<br>Parasite Metazoan      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |
| Intestine Small, Duodenum                         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum<br>Hyperplasia, Lymphoid | + | + | + | 3 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                                       |   |   |   | 1 |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |
| Basophilic Focus                                  | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Clear Cell Focus                                  | X |   |   |   |   |   | X | X |   |   |   | X |   |   |   |   |   |   |   |   | X | X |   |   | X |
| Eosinophilic Focus                                |   |   |   | X | X | X | X | X | X |   | X | X | X | X |   | X |   |   |   | X |   | X | X | X | X |
| Fatty Change, Focal                               |   |   |   | 1 |   |   |   | 2 |   |   |   | 1 |   |   |   |   |   |   | 1 | 2 | 1 | 1 |   |   |   |
| Fatty Change, Diffuse                             |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatodiaphragmatic Nodule                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |
| Inflammation                                      | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Mixed Cell Focus                                  | X | X | X | X |   |   | X |   |   | X | X | X | X |   | X | X | X | X |   |   |   |   |   |   |   |
| Bile Duct, Cyst                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



| FISCHER 344 RATS FEMALE<br>6 MG/KG | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |                  |                  |
|------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|
|                                    | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>1<br>8 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>8 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>0 |           |                      | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 |
| Adrenal Cortex                     | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |
| Angiectasis                        | 1                | 2                | 2                | 1                | 1                | 1                | 2                | 1                |                  | 2                | 2                | 1                | 2                | 2                | 2                | 2                | 2                | 2                | 1                | 2                | 1         | 2                    | 2                |                  |
| Degeneration, Cystic               |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      | 1                |                  |
| Hyperplasia                        |                  | 1                | 1                |                  | 3                | 1                | 1                | 2                | 1                |                  | 1                |                  | 1                | 1                | 2                |                  | 2                | 3                |                  |                  | 2         | 2                    | 2                |                  |
| Hypertrophy                        | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                | 1                |                  |                  | 2                |                  |                  |                  | 1                |                  |           |                      |                  |                  |
| Pigmentation                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  | 3                |
| Vacuolization Cytoplasmic          | 1                | 1                | 1                |                  | 2                |                  |                  | 1                |                  |                  | 1                | 1                |                  |                  | 2                |                  |                  |                  | 1                | 2                | 1         | 2                    | 1                | 1                |
| Adrenal Medulla                    | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |
| Atrophy                            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  | 3                |
| Hyperplasia                        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |
| Islets, Pancreatic                 | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |
| Parathyroid Gland                  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |
| Hyperplasia, Diffuse               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | 1                    |                  |                  |
| Pituitary Gland                    | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |
| Cyst                               |                  |                  |                  |                  |                  | X                | X                | X                |                  | X                | X                | X                | X                |                  | X                | X                | X                | X                |                  |                  | X         |                      |                  |                  |
| Fibrosis                           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  | 2                |
| Pigmentation                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  | 2                |
| Pars Distalis, Hyperplasia         |                  | 3                | 3                |                  | 2                |                  | 3                |                  | 3                | 2                | 3                |                  |                  |                  | 3                | 2                |                  |                  | 4                |                  |           |                      | 2                | 2                |
| Thyroid Gland                      | +                | +                | +                | +                | +                | +                | +                | +                | A                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |
| C-cell, Hyperplasia                | 1                | 1                | 1                | 1                | 2                |                  | 3                | 2                |                  |                  |                  | 1                |                  | 1                | 1                | 1                | 1                | 1                |                  | 1                |           | 1                    | 2                | 2                |
| Follicular Cell, Hyperplasia       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |

**GENERAL BODY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
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 I .. Insufficient tissue  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST    |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                | females<br>(cont...) |
|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|
|                         | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       | 07<br>29       |                      |
| 6 MG/KG                 | 00<br>25<br>11 | 00<br>25<br>12 | 00<br>25<br>13 | 00<br>25<br>14 | 00<br>25<br>15 | 00<br>25<br>16 | 00<br>25<br>17 | 00<br>25<br>18 | 00<br>25<br>19 | 00<br>25<br>20 | 00<br>25<br>21 | 00<br>25<br>22 | 00<br>25<br>23 | 00<br>25<br>24 | 00<br>25<br>25 | 00<br>25<br>26 | 00<br>25<br>27 | 00<br>25<br>28 | 00<br>25<br>29 | 00<br>25<br>30 | 00<br>25<br>31 | 00<br>25<br>32 | 00<br>25<br>33 | 00<br>25<br>34 | 00<br>25<br>35       |

**GENITAL SYSTEM**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst                 |   |   |   |   | X | X |   | X | X |   |   |   | X |   |   |   |   |   | X |   |   |   |   |   |   |
| Hyperplasia          | 2 |   |   |   | 2 | 2 |   |   | 2 |   | 1 | 2 | 3 |   | 1 |   |   |   |   |   |   |   |   |   |   |
| Inflammation         | 1 | 1 |   | 1 |   |   |   |   | 1 | 3 | 2 | 2 | 2 | 2 |   | 1 |   |   |   | 1 | 2 |   | 1 | 1 | 2 |
| Ovary                | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Cyst                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |
| Uterus               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Myometrium, Fibrosis |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Vagina               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**HEMATOPOIETIC SYSTEM**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                       |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 3 |   |   |   |   |   | 2 |
| Lymph Node                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mediastinal, Ectasia              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lymph Node, Mandibular            | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Lymph Node, Mesenteric            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Histiocyte | 1 |   | 2 |   | 1 | 1 | 1 | 1 |   | 2 | 2 | 1 |   | 1 |   | 1 | 1 | 1 | 1 |   |   | 1 |   |   |   |
| Spleen                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Congestion                        |   |   |   |   | 1 | 2 |   |   |   |   | 1 |   |   | 1 |   |   |   | 1 |   |   |   |   |   | 1 |   |

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 1) Minimal 3) Moderate  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST                       | FISCHER 344 RATS FEMALE |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |                  |
|-----------------------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|
|                                   | 0<br>7<br>2<br>9        | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>1<br>8 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>3 | 0<br>7<br>2<br>3 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 |           |                      | 0<br>7<br>3<br>0 |
| Hematopoietic Cell Proliferation  | 2                       | 2                | 1                | 2                | 2                | 2                | 1                | 2                | 2                | 2                | 1                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 3                | 2                | 2                | 2                | 2                | 2                | 2         | 0                    |                  |
| Pigmentation                      | 2                       | 2                | 2                | 2                | 2                | 2                | 2                | 2                | 3                | 2                | 2                | 3                | 2                | 3                | 2                | 2                | 2                | 2                | 2                | 3                | 2                | 2                | 3                | 2                | 2                | 2         | 0                    |                  |
| Capsule, Hemorrhage               |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | 0                    |                  |
| Capsule, Hypertrophy, Mesothelium | 1                       | 1                |                  | 1                |                  |                  | 1                | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | 0                    |                  |
| Lymphoid Follicle, Atrophy        |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | 0                    |                  |
| Red Pulp, Hyperplasia             |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | 0                    |                  |
| Thymus                            | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | 0                    |                  |
| Atrophy                           | 3                       | 2                | 2                | 2                | 2                | 2                | 2                | 2                |                  | 2                | 2                | 2                | 2                |                  | 2                | 2                |                  |                  | 3                | 3                | 2                | 2                | 2                | 2                | 2                | 0         |                      |                  |
| <b>INTEGUMENTARY SYSTEM</b>       |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Mammary Gland                     | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | 0                    |                  |
| Hyperplasia                       |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | 0                    |                  |
| Skin                              | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | 0                    |                  |
| Cyst Epithelial Inclusion         |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | 0                    |                  |
| <b>MUSCULOSKELETAL SYSTEM</b>     |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Bone                              | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | 0                    |                  |
| <b>NERVOUS SYSTEM</b>             |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Brain                             | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | 0                    |                  |
| Hemorrhage                        |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | 0                    |                  |
| Hydrocephalus                     |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | 0                    |                  |
| <b>RESPIRATORY SYSTEM</b>         |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |
| Lung                              | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | 0                    |                  |

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| FISCHER 344 RATS FEMALE<br>6 MG/KG                      | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | females<br>(cont...) |                       |   |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|-----------------------|---|
|   | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>1<br>8      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>8      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>8      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>9      | 0<br>7<br>3<br>0      |                      |                       |   |
|   | 0<br>0<br>2<br>5<br>1 | 0<br>0<br>2<br>5<br>2 | 0<br>0<br>2<br>5<br>3 | 0<br>0<br>2<br>5<br>4 | 0<br>0<br>2<br>5<br>5 | 0<br>0<br>2<br>5<br>6 | 0<br>0<br>2<br>5<br>7 | 0<br>0<br>2<br>5<br>8 | 0<br>0<br>2<br>5<br>9 | 0<br>0<br>2<br>5<br>0 | 0<br>0<br>2<br>5<br>1 | 0<br>0<br>2<br>5<br>2 | 0<br>0<br>2<br>5<br>3 | 0<br>0<br>2<br>5<br>4 | 0<br>0<br>2<br>5<br>5 | 0<br>0<br>2<br>5<br>6 | 0<br>0<br>2<br>5<br>7 | 0<br>0<br>2<br>5<br>8 | 0<br>0<br>2<br>5<br>9 | 0<br>0<br>2<br>6<br>0 | 0<br>0<br>2<br>6<br>1 |                      | 0<br>0<br>2<br>6<br>2 |   |
| Alveolar Epithelium, Hyperplasia                        |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3                     | 2                     |                      |                       |   |
| Alveolus, Infiltration Cellular, Histiocyte             | 1                     |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     | 1                     |                       |                       |                       |                       | 1                     |                      |                       |   |
| Nose  | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                    |                       |   |
| Foreign Body  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       | X                     |                       | X                     |                       |                       |                       |                      |                       |   |
| Inflammation  | 1                     |                       | 1                     |                       | 2                     | 1                     | 1                     |                       |                       | 1                     |                       | 1                     |                       | 1                     | 1                     |                       | 3                     |                       | 2                     |                       | 1                     | 1                    |                       |   |
| Glands, Respiratory Epithelium, Dilatation              |                       |                       |                       |                       |                       | 1                     |                       |                       |                       | 1                     |                       |                       |                       | 1                     |                       |                       |                       | 1                     |                       | 1                     |                       | 1                    |                       |   |
| Glands, Respiratory Epithelium, Hyperplasia             |                       |                       |                       |                       |                       | 1                     |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                    |                       |   |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory | 1                     |                       | 1                     |                       |                       | 1                     |                       | 1                     | 1                     |                       | 1                     |                       | 1                     | 1                     |                       | 1                     | 1                     |                       |                       | 1                     | 1                     |                      |                       |   |
| Glands, Transitional Epithelium, Hyperplasia            | 1                     |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                      |                       |   |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     | 3                     | 3                     | 2                     | 3                     | 2                     | 2                     | 4                     | 2                     |                       | 2                     | 2                     | 2                     | 1                     | 2                     | 2                     |                       | 2                     | 2                     | 3                     |                       | 1                     | 3                    | 1                     | 1 |
| Olfactory Epithelium, Metaplasia, Respiratory           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       | 1                     |                       |                       |                       |                      |                       |   |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   | 1                     | 2                     | 2                     | 1                     | 1                     | 1                     | 1                     | 1                     |                       | 1                     | 1                     | 1                     | 1                     | 1                     |                       | 1                     | 1                     | 2                     |                       |                       |                       | 2                    |                       |   |
| Respiratory Epithelium, Hyperplasia                     |                       | 1                     |                       |                       |                       |                       |                       |                       |                       | 1                     |                       |                       |                       |                       |                       |                       | 2                     |                       | 2                     |                       | 1                     |                      | 1                     |   |
| Transitional Epithelium, Hyperplasia                    |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                      |                       |   |
| Trachea   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                    | +                     | + |
| <b>SPECIAL SENSES SYSTEM</b>                            |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                      |                       |   |
| Eye   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                    | +                     | + |
| Cataract  |                       | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 4                     |                       |                       |                       |                       |                       |                      |                       |   |
| Retina, Atrophy   |                       | 3                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3                     |                       |                       |                       |                       |                       |                       |                      |                       |   |
| Harderian Gland   | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                    | +                     | + |
| Inflammation  |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                      |                       |   |
| <b>URINARY SYSTEM</b>                                   |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                      |                       |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically  
X .. Lesion present  
I .. Insufficient tissue  
M .. Missing tissue  
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BLANK .. Not examined microscopically  
1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>6 MG/KG           | DAY ON TEST |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          |          | ANIMAL ID | females<br>(cont...) |                            |          |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|----------------------|----------------------------|----------|
|  | 07<br>29    | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 | 07<br>29 |           |                      | 07<br>29                   | 07<br>29 |
|  | 0           | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0                    | 000000000000000000000000   |          |
|  | 0           | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0         | 0                    | 000000000000000000000000   |          |
|  | 2           | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2        | 2         | 2                    | 222222222222222222222222   |          |
|  | 5           | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5        | 5         | 5                    | 555555555555555555555555   |          |
|  | 1           | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 0        | 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 0        | 1        | 2        | 3        | 4        | 5         | 6                    | 12345678901234567890123456 |          |
| Kidney                                       | +           | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +         |                      |                            |          |
| Accumulation, Hyaline Droplet Cyst           | 1           |          |          | 1        |          |          |          |          |          |          |          |          | 1        | 2        | 1        |          | 1        | 1        | 1        |          |          |          | 1        | 1        | 1         |                      |                            |          |
| Mineralization                               | 1           | 1        |          | 1        | 1        | 1        | 1        |          |          |          |          |          | 1        | 1        | 1        | 1        | 1        | 1        |          |          | 1        |          | 2        | 1        | 1         | 1                    |                            |          |
| Nephropathy                                  | 1           |          | 1        | 1        | 1        |          |          | 1        |          |          |          | 1        | 1        | 4        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 2         | 1                    |                            |          |
| Pigmentation                                 | 1           | 1        | 1        | 1        | 1        | 1        | 1        |          | 1        | 1        | 1        | 1        | 3        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1        | 1         |                      |                            |          |
| Pelvis, Inflammation                         |             |          |          |          |          |          |          |          |          |          |          |          |          | 3        |          |          |          |          |          |          |          | 2        |          |          |           |                      |                            |          |
| Pelvis, Transitional Epithelium, Hyperplasia |             |          |          |          |          |          |          |          |          |          |          |          | 2        |          |          |          |          |          |          |          |          | 1        |          |          |           |                      |                            |          |
| Urinary Bladder                              | +           | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +        | +         |                      |                            |          |

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 + .. Tissue examined microscopically  
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 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>6 MG/KG      | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |      |     |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|-----|
|   | 0730        | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  |          | 0730 |     |
| ANIMAL ID                               | 00076       | 00077 | 00078 | 00079 | 00080 | 00081 | 00082 | 00083 | 00084 | 00085 | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096    |      |     |
| Bile Duct, Fibrosis                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 11   | 1.0 |
| Bile Duct, Hyperplasia                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 21   | 1.0 |
| Mesentery                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 9    |     |
| Fat, Necrosis                           |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 9    | 3.0 |
| Pancreas                                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 50   |     |
| Cyst                                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 4    |     |
| Infiltration Cellular, Mononuclear Cell |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 11   | 1.1 |
| Acinus, Atrophy                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 7    | 1.7 |
| Duct, Inflammation, Chronic Active      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1    | 3.0 |
| Salivary Glands                         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 50   |     |
| Stomach, Forestomach                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 50   |     |
| Hyperplasia, Squamous                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1    | 1.0 |
| Stomach, Glandular                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 50   |     |
| Tooth                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1    |     |
| Peridontal Tissue, Inflammation         |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1    | 1.0 |
| <b>CARDIOVASCULAR SYSTEM</b>            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      |     |
| Blood Vessel                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 50   |     |
| Heart                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 50   |     |
| Cardiomyopathy                          |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 42   | 1.1 |
| Endocardium, Hyperplasia                |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1    | 2.0 |
| <b>ENDOCRINE SYSTEM</b>                 |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      |     |

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TDMS No. 20107 - 03  
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
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 Lab: BAT

| FISCHER 344 RATS FEMALE<br>6 MG/KG | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |      |        |        |    |
|------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|--------|--------|----|
|                                    | 0700        | 0703 | 0708 | 0703 | 0703 | 0708 | 0700 | 0701 | 0707 | 0708 | 0700 | 0707 | 0707 | 0707 | 0707 | 0705 | 0707 | 0707 | 0707 | 0706 |          | 0707 | 0707 | 0707   | 0705   |    |
| ANIMAL ID                          | 0000        | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000     | 0000 | 0000 | 0000   |        |    |
| Adrenal Cortex                     | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | 50     |        |    |
| Angiectasis                        | 2           | 2    | 2    | 2    | 2    | 1    | 2    | 2    |      | 2    | 2    | 2    | 2    |      | 1    | 1    | 1    |      | 2    |      |          | 1    | 2    | 42 1.7 |        |    |
| Degeneration, Cystic               |             |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      | 1    |      | 1    |      |      |          |      |      | 5 1.0  |        |    |
| Hyperplasia                        | 1           | 1    | 1    |      |      |      |      |      |      |      | 1    |      |      |      | 1    |      | 2    |      |      |      | 1        |      | 2    | 24 1.5 |        |    |
| Hypertrophy                        |             |      | 1    |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      | 1    | 1    |          |      | 1    | 10 1.2 |        |    |
| Pigmentation                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      | 1 3.0  |        |    |
| Vacuolization Cytoplasmic          |             | 1    | 2    |      |      |      |      |      |      |      |      | 1    |      |      | 1    | 1    | 2    | 2    |      | 1    | 1        | 2    | 1    | 2      | 26 1.3 |    |
| Adrenal Medulla                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | 50     |        |    |
| Atrophy                            |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      | 1 3.0  |        |    |
| Hyperplasia                        |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    | 2    |      |      | 2        |      |      | 3 1.7  |        |    |
| Islets, Pancreatic                 | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | 50     |        |    |
| Parathyroid Gland                  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | 50     |        |    |
| Hyperplasia, Diffuse               | 1           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      | 2 1.0  |        |    |
| Pituitary Gland                    | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | 50     |        |    |
| Cyst                               | X           |      |      |      |      | X    | X    |      |      |      | X    |      | X    |      |      |      |      |      |      |      | X        | X    | X    | 20     |        |    |
| Fibrosis                           |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      | 1 2.0  |        |    |
| Pigmentation                       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      | 1 2.0  |        |    |
| Pars Distalis, Hyperplasia         |             |      | 2    |      |      | 2    | 2    |      |      |      |      |      | 3    |      |      |      |      |      |      |      | 3        |      |      | 17 2.6 |        |    |
| Thyroid Gland                      | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | A        | +    | +    | +      | A      | 47 |
| C-cell, Hyperplasia                |             | 3    | 2    | 1    |      | 1    |      | 1    |      | 1    |      | 2    | 1    |      | 1    | 1    | 1    | 1    | 1    | 3    |          | +    | 1    | 1      | 33 1.4 |    |
| Follicular Cell, Hyperplasia       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          | 1    |      |        | 1 1.0  |    |

**GENERAL BODY SYSTEM**

NONE

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Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

|  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| FISCHER 344 RATS FEMALE<br><br>6 MG/KG | DAY ON TEST | 0730  | 0729  | 0778  | 0773  | 0773  | 0772  | 0773  | 0771  | 0768  | 0760  | 0766  | 0777  | 0777  | 0777  | 0777  | 0757  | 0777  | 0777  | 0767  | 0777  | 0777  | 0777  | 0757  | * TOTALS |
|  | ANIMAL ID   | 00276 | 00077 | 00078 | 00079 | 00080 | 00081 | 00082 | 00083 | 00084 | 00085 | 00086 | 00087 | 00088 | 00089 | 00090 | 00091 | 00092 | 00093 | 00094 | 00095 | 00096 | 00097 | 00098 |          |
|  |             | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |          |

**GENITAL SYSTEM**

|                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |     |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Clitoral Gland Cyst         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 8   |     |
| Hyperplasia                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   | X |   | 9  | 2.0 |     |
| Inflammation                | 1 |   |   | 2 |   | 3 |   | 1 |   |   | 1 |   | 2 |   | 1 | 2 |   | 1 | 1 |   | 1 |   |   | 26 | 1.5 |     |
| Ovary Atrophy               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2   | 2.0 |
| Cyst                        |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | X |   | 3  |     |     |
| Uterus Myometrium, Fibrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1   | 3.0 |
| Vagina                      |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |     |     |

**HEMATOPOIETIC SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |     |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Bone Marrow Hyperplasia                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 13 | 2.5 |
| Lymph Node Mediastinal, Ectasia                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + | 1  | 1  | 2.0 |
| Lymph Node, Mandibular                                   | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0  |    |     |
| Lymph Node, Mesenteric Infiltration Cellular, Histiocyte | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 49 | 29 | 1.2 |
| Spleen Congestion  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 9  | 1.1 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>6 MG/KG | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |      |      |    |     |     |     |
|------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|----|-----|-----|-----|
|                                    | 0730        | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 |          | 0730 | 0730 |      |    |     |     |     |
| ANIMAL ID                          | 0076        | 0077 | 0078 | 0079 | 0080 | 0081 | 0082 | 0083 | 0084 | 0085 | 0086 | 0087 | 0088 | 0089 | 0090 | 0091 | 0092 | 0093 | 0094 | 0095 | 0096     | 0097 | 0098 | 0099 |    |     |     |     |
| Hematopoietic Cell Proliferation   | 2           | 2    | 2    | 2    | 2    | 2    | 2    | 1    | 1    | 1    | 2    | 2    | 2    | 2    |      | 2    | 2    | 2    | 2    | 1    | 1        | 2    | 2    |      | 45 | 1.8 |     |     |
| Pigmentation                       | 1           | 2    | 3    | 2    | 2    | 2    | 1    | 3    |      | 3    | 2    | 1    | 2    | 3    | 3    | 3    |      | 2    | 2    | 2    | 2        | 1    | 2    | 2    |    | 47  | 2.1 |     |
| Capsule, Hemorrhage                |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      | 3    |      |    | 1   | 3.0 |     |
| Capsule, Hypertrophy, Mesothelium  |             | 1    | 1    | 1    |      |      |      | 1    |      |      |      | 1    |      |      | 1    |      | 1    |      |      |      | 1        |      |      |      |    | 14  | 1.0 |     |
| Lymphoid Follicle, Atrophy         |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |    | 2   | 3.0 |     |
| Red Pulp, Hyperplasia              |             |      |      | 3    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |    | 1   | 3.0 |     |
| Thymus                             | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +  | 50  |     |     |
| Atrophy                            | 2           | 2    | 2    | 2    | 3    | 2    | 2    | 2    |      | 2    | 2    | 2    | 2    | 3    | 2    | 2    | 2    | 2    | 2    | 2    | 3        | 3    | 2    | 3    |    | 45  | 2.2 |     |
| <b>INTEGUMENTARY SYSTEM</b>        |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |    |     |     |     |
| Mammary Gland                      | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +  | +   | 50  |     |
| Hyperplasia                        |             | 1    |      |      |      |      |      |      |      | 1    |      | 1    |      |      |      |      | 1    |      | 1    |      |          |      |      |      |    |     | 9   | 1.1 |
| Skin                               | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +  | +   | 50  |     |
| Cyst Epithelial Inclusion          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |    |     | 1   | 3.0 |
| <b>MUSCULOSKELETAL SYSTEM</b>      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |    |     |     |     |
| Bone                               | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +  | +   | 50  |     |
| <b>NERVOUS SYSTEM</b>              |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |    |     |     |     |
| Brain                              | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +  | +   | 50  |     |
| Hemorrhage                         |             |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |    |     | 1   | 2.0 |
| Hydrocephalus                      |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |          |      |      |      |    |     | 1   | 2.0 |
| <b>RESPIRATORY SYSTEM</b>          |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |      |      |      |    |     |     |     |
| Lung                               | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +        | +    | +    | +    | +  | +   | 50  |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

| DAY ON TEST   |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0   | 0   | 0   | 0   | 0  | 0   | 0   |     |           |   |  |   |
|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|---|---|-----|-----|-----|-----|----|-----|-----|-----|-----------|---|--|---|
|   |  | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 0 | 6 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7  | 7   | 6 | 7 | 7   | 7   | 5   | 7   | 7  | 7   | 7   |     |           | 7 |  |   |
| FISCHER 344 RATS FEMALE                                 |  | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 1 | 3 | 8 | 3 | 2 | 2 | 3 | 7 | 0 | 3 | 2 | 3  | 3   | 2 | 3 | 2   | 3   | 1   | 3   | 2  | 3   | 1   | 6   | ANIMAL ID |   |  |   |
|   |  | 0 | 9 | 8 | 0 | 0 | 8 | 0 | 1 | 7 | 8 | 0 | 9 | 9 | 0 | 4 | 1 | 0 | 9 | 0  | 8   | 7 | 8 | 7   | 8   | 7   | 7   | 9  | 0   | 6   | 0   |           |   |  | 0 |
| 6 MG/KG   |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   |           |   |  |   |
|   |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0   | 0 | 0 | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   |           |   |  | 0 |
|   |  | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2  | 2   | 2 | 2 | 2   | 2   | 2   | 2   | 2  | 2   | 2   | 3   |           |   |  | 3 |
|   |  | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9  | 9   | 9 | 9 | 9   | 9   | 9   | 9   | 9  | 9   | 9   | 0   |           |   |  | 0 |
|   |  | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4  | 5   | 6 | 7 | 8   | 9   | 0   | 0   | 0  | 0   | 0   | 0   | * TOTALS  |   |  |   |
| Alveolar Epithelium, Hyperplasia                        |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |   |   |     |     |     |     |    | 2   | 2.5 |     |           |   |  |   |
| Alveolus, Infiltration Cellular, Histiocyte             |  | 1 | 1 |   |   |   |   | 1 |   |   |   |   |   | 1 |   |   |   |   |   |    |     |   |   |     |     |     | 1   | 10 | 1.0 |     |     |           |   |  |   |
| Nose  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | +   | + | + | +   | +   | +   | +   | +  | A   | 49  |     |           |   |  |   |
| Foreign Body  |  |   |   |   |   |   |   | X |   |   |   |   |   | X | X | X |   |   |   |    |     |   |   |     | X   | 8   |     |    |     |     |     |           |   |  |   |
| Inflammation  |  |   |   |   |   | 1 | 1 | 1 | 2 |   |   |   |   |   | 1 |   | 2 | 1 | 1 |    |     |   |   |     |     | 1   | 3   | 2  | 24  | 1.4 |     |           |   |  |   |
| Glands, Respiratory Epithelium, Dilatation              |  |   |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   | 1 |   |   |   |    |     |   |   |     |     |     |     | 1  | 1   | 12  | 1.0 |           |   |  |   |
| Glands, Respiratory Epithelium, Hyperplasia             |  | 1 |   | 1 |   | 1 |   | 1 |   | 1 |   | 1 |   | 1 |   | 1 |   | 1 |   | 1  |     | 1 |   | 1   |     | 1   |     | 9  | 1.0 |     |     |           |   |  |   |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   |   |   |   | 1 | 1 | 1 | 2 | 1 | 1  |     | 1 |   | 1   | 2   | 2   | 2   | 33 | 1.1 |     |     |           |   |  |   |
| Glands, Transitional Epithelium, Hyperplasia            |  |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |    |     | 1 | 4 | 1.0 |     |     |     |    |     |     |     |           |   |  |   |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     |  | 3 | 2 | 4 |   | 1 | 2 | 4 | 1 |   | 1 | 2 | 3 | 1 | 1 | 1 | 3 | 1 |   | 1  | 1   | 3 | 4 | 4   | 42  | 2.1 |     |    |     |     |     |           |   |  |   |
| Olfactory Epithelium, Metaplasia, Respiratory           |  |   |   |   |   |   |   |   | 1 |   |   |   |   | 1 | 2 | 2 |   |   |   |    |     | 2 | 6 | 1.5 |     |     |     |    |     |     |     |           |   |  |   |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   |  | 1 | 1 | 2 |   | 2 |   | 2 |   |   |   |   | 1 | 1 | 1 | 1 |   | 1 |   | 1  | 1   | 1 | 1 | 30  | 1.2 |     |     |    |     |     |     |           |   |  |   |
| Respiratory Epithelium, Hyperplasia                     |  |   |   |   |   | 2 | 2 |   |   |   |   |   |   | 1 | 1 |   | 1 | 2 | 1 | 13 | 1.4 |   |   |     |     |     |     |    |     |     |     |           |   |  |   |
| Transitional Epithelium, Hyperplasia                    |  |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |    |     |   |   |     |     |     |     | 1  | 1.0 |     |     |           |   |  |   |
| Trachea   |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | +   | + | + | +   | +   | +   | +   | +  | +   | +   | 50  |           |   |  |   |
| SPECIAL SENSES SYSTEM                                   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |   |   |     |     |     |     |    |     |     |     |           |   |  |   |
| Eye   |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | +   | + | + | +   | +   | +   | +   | +  | +   | +   | 50  |           |   |  |   |
| Cataract  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |   |   |     |     |     |     |    | 2   | 3.5 |     |           |   |  |   |
| Retina, Atrophy   |  |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |    |     |   |   |     |     |     |     |    | 3   | 3.0 |     |           |   |  |   |
| Harderian Gland   |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +  | +   | + | + | +   | +   | +   | +   | +  | +   | +   | 50  |           |   |  |   |
| Inflammation  |  |   |   |   | 3 | 1 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |    |     |   |   |     | 1   | 4   | 1.5 |    |     |     |     |           |   |  |   |
| URINARY SYSTEM  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |     |   |   |     |     |     |     |    |     |     |     |           |   |  |   |

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 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
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 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>6 MG/KG           | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|----------|
|  | 07030       | 0729  | 0778  | 0773  | 0773  | 0777  | 0777  | 0776  | 0706  | 0706  | 0776  | 0777  | 0777  | 0777  | 0777  | 0757  | 0777  | 0777  | 0777  | 0767  | 0777  | 0777  | 0777  | 0777  | 0777   |          |
| ANIMAL ID                                    | 00000       | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000 | 00000  |          |
| Kidney                                       | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50     |          |
| Accumulation, Hyaline Droplet                |             | 1     | 1     | 1     |       | 1     |       | 1     |       |       |       | 1     |       |       |       | 2     | 1     | 1     |       |       |       |       | 1     | 1     | 23 1.1 |          |
| Cyst   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | 1      |          |
| Mineralization                               | 1           | 1     | 1     | 1     |       | 1     | 1     | 1     | 1     |       |       |       |       | 1     | 1     | 1     |       | 1     |       |       | 1     | 1     | 1     | 1     | 35 1.0 |          |
| Nephropathy                                  | 1           |       | 1     | 1     |       | 1     | 1     | 1     |       | 1     | 1     | 1     | 1     | 2     | 1     | 1     | 1     | 1     | 1     | 2     | 1     |       | 1     | 1     | 38 1.2 |          |
| Pigmentation                                 | 1           | 1     | 1     | 1     | 1     | 1     | 1     | 1     |       | 1     | 1     |       | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 45 1.0 |          |
| Pelvis, Inflammation                         |             |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       | 3 2.3  |          |
| Pelvis, Transitional Epithelium, Hyperplasia |             |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |       | 3 1.3  |          |
| Urinary Bladder                              | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | 50     |          |

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 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | ANIMAL ID | females<br>(cont...) |
|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|----------------------|
|                         | 0<br>7<br>2<br>8      | 0<br>7<br>1<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>8      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>6<br>4<br>6      | 0<br>7<br>0<br>5      | 0<br>7<br>2<br>8      | 0<br>7<br>2<br>9      | 0<br>6<br>8<br>0      | 0<br>7<br>3<br>0      | 0<br>6<br>5<br>9      | 0<br>6<br>8<br>0      | 0<br>7<br>2<br>8      | 0<br>6<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>6<br>1<br>1      | 0<br>7<br>1<br>4      | 0<br>7<br>2<br>9      | 0<br>6<br>2<br>5      |                       |           |                      |
| 20 MG/KG                | 0<br>0<br>3<br>0<br>1 | 0<br>0<br>3<br>0<br>2 | 0<br>0<br>3<br>0<br>3 | 0<br>0<br>3<br>0<br>4 | 0<br>0<br>3<br>0<br>5 | 0<br>0<br>3<br>0<br>6 | 0<br>0<br>3<br>0<br>7 | 0<br>0<br>3<br>0<br>8 | 0<br>0<br>3<br>0<br>9 | 0<br>0<br>3<br>1<br>0 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>1<br>1 | 0<br>0<br>3<br>2<br>1 | 0<br>0<br>3<br>2<br>2 | 0<br>0<br>3<br>2<br>2 | 0<br>0<br>3<br>2<br>3 | 0<br>0<br>3<br>2<br>4 | 0<br>0<br>3<br>2<br>5 |           |                      |

**ALIMENTARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                                  |   |   |   |   | 1 |   | 1 |   |   |   |   |   |   | 1 |   | 1 |   | 1 |   |   |   |   |   |   |
| Basophilic Focus                             |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |
| Clear Cell Focus                             | X |   | X | X | X |   | X | X |   |   | X |   | X |   | X | X | X |   | X |   |   |   |   |   |
| Degeneration, Cystic                         |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eosinophilic Focus                           | X | X | X |   |   |   | X | X |   | X | X |   | X |   |   |   | X | X |   | X | X |   | X |   |
| Fatty Change, Focal                          |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fatty Change, Diffuse                        |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   | 3 |
| Hematopoietic Cell Proliferation             |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |
| Hepatodiaphragmatic Nodule                   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | X | X |   |   |   |   |
| Inflammation                                 | 1 | 1 | 1 | 1 | 2 |   | 1 | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Mixed Cell Focus                             |   |   | X | X | X |   |   |   |   |   |   |   | X |   |   |   | X |   | X |   |   | X |   | X |
| Bile Duct, Fibrosis                          |   |   | 1 |   |   |   | 1 | 1 | 1 |   |   |   |   | 1 |   |   | 1 | 1 | 1 | 1 |   |   | 1 |   |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br><br>20 MG/KG       | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | ANIMAL ID | females<br>(cont...) |      |      |      |      |      |      |      |      |   |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|------|------|------|------|------|---|
|   | 0728        | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 |           |                      | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 |   |
| Bile Duct, Hyperplasia                        | 1           |      |      |      |      |      | 1    | 1    | 1    |      |      | 2    |      |      |      | 1    |      |      | 1    | 1    | 1    | 1    |      |      |           | 1                    | 1    |      |      |      |      |      |      |      |   |
| Centrilobular, Degeneration                   |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 2    |           |                      |      |      |      |      |      |      |      |      |   |
| Hepatocyte, Hypertrophy                       |             |      |      |      | 1    | 2    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      |   |
| Hepatocyte, Necrosis                          |             |      |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      |   |
| Oval Cell, Hyperplasia                        |             |      |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      |   |
| Mesentery<br>Fat, Necrosis                    |             |      |      |      |      |      | +    |      |      |      | +    |      |      |      | +    |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      |   |
| Pancreas<br>Cyst                              | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      |   |
| Infiltration Cellular, Mononuclear Cell       |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      |   |
| Acinus, Atrophy                               |             |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      |   |
| Salivary Glands                               | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | +    | +    | +    | +    | +    |   |
| Stomach, Forestomach<br>Hyperplasia, Squamous | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | +    | +    | +    | +    | +    |   |
| Inflammation                                  |             |      | 2    |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      | 2 |
| Ulcer   |             |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      | 1    |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      | 3 |
| Stomach, Glandular<br>Inflammation            | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | +    | +    | +    | +    | +    |   |
| Ulcer   |             |      |      |      |      |      |      |      |      |      | 2    |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      | 3 |
| <b>CARDIOVASCULAR SYSTEM</b>                  |             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |           |                      |      |      |      |      |      |      |      |      |   |
| Blood Vessel                                  | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | +    | +    | +    | +    |      |   |
| Heart<br>Cardiomyopathy                       | +           | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +    | +         | +                    | +    | +    | +    | +    | +    | +    | +    |      |   |
|   |             |      | 1    | 1    | 2    |      |      | 1    | 1    | 1    | 1    | 1    | 2    |      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1         | 1                    | 1    | 2    | 1    |      |      |      |      |      |   |

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 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS FEMALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | ANIMAL ID | females<br>(cont...) |
|-------------|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|
|             | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |                      |
| 7           | 7                       | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 6 | 0         | 0                    |
| 2           | 1                       | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 0 | 2 | 2 | 8 | 3 | 5 | 8 | 2 | 3 | 3 | 3 | 1 | 1 | 1 | 2 | 5 | 0 | 0         |                      |
| 8           | 0                       | 0 | 8 | 8 | 0 | 0 | 0 | 6 | 5 | 8 | 9 | 0 | 0 | 9 | 0 | 8 | 0 | 8 | 0 | 0 | 1 | 4 | 9 | 9 | 0 | 0         |                      |
| 0           | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         |                      |
| 0           | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         |                      |
| 3           | 3                       | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 0         |                      |
| 0           | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 0 | 0         |                      |
| 1           | 2                       | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 0         |                      |

Pigmentation 1

**ENDOCRINE SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                | 2 | 2 | 2 | 2 | 3 |   | 2 | 1 | 2 |   | 1 | 1 |   | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 |   | 2 | 2 |
| Degeneration, Cystic       |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |   |   |   |   |   | 1 |   |   | 1 |   |   |
| Hyperplasia                |   | 2 |   |   |   | 2 | 1 |   | 1 | 2 |   |   |   |   | 3 | 1 |   |   |   | 3 |   | 1 |   | 2 |
| Hypertrophy                |   |   |   |   |   | 2 | 2 |   | 3 | 2 | 1 |   |   |   |   |   |   | 2 |   |   |   | 1 |   |   |
| Vacuolization Cytoplasmic  | 1 | 1 |   |   |   | 2 |   |   | 1 | 2 | 1 |   | 1 |   | 1 |   | 1 | 1 |   |   | 2 | 2 |   | 3 |
| Adrenal Medulla            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Islets, Pancreatic         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia, Focal         | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hyperplasia, Diffuse       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst                       | X |   | X | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   | X | X |
| Pars Distalis, Cyst        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |
| Pars Distalis, Hyperplasia | 3 |   | 1 |   |   |   | 3 |   |   |   |   |   |   |   |   |   | 2 |   |   | 1 | 4 | 2 |   | 2 |
| Thyroid Gland              | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + |
| C-cell, Hyperplasia        | 1 |   |   | 1 | 1 |   |   |   |   |   |   | 1 |   |   |   |   |   | 1 | 1 |   |   |   |   |   |

**GENERAL BODY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

|                                |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>FISCHER 344 RATS FEMALE</b> | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
| <b>20 MG/KG</b>                | ANIMAL ID   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>females (cont...)</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                |             | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6                        | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 |   |   |   |
|                                |             | 2 | 1 | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 0 | 2 | 2 | 8 | 3 | 5 | 8 | 2 | 3 | 3 | 3 | 1 | 1 | 2 | 3                        | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |   |
|                                |             | 8 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 6 | 5 | 8 | 9 | 0 | 0 | 9 | 0 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0                        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0                        | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |
|                                |             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3                        | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |   |
|                                |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2                        | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   |
|                                |             | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 1 | 2                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |   |   |   |   |   |   |

GENITAL SYSTEM

|                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Cyst              |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Hyperplasia       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Inflammation      |   |   |   |   |   | 2 |   | 1 | 1 |   |   | 1 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Ovary             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Cyst              |   | X |   |   |   |   |   | X |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Uterus            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Decidual Reaction |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Inflammation      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

HEMATOPOIETIC SYSTEM

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Bone Marrow                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |  |
| Hyperplasia                       | 2 | 3 |   |   |   | 2 | 3 | 2 |   | 3 | 3 |   |   |   | 3 | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Lymph Node                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Mediastinal, Ectasia              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Lymph Node, Mandibular            | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |  |  |
| Lymph Node, Mesenteric            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Infiltration Cellular, Histiocyte | 1 |   | 1 | 1 |   | 1 | 1 | 1 | 1 |   | 1 | 1 | 1 |   | 2 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Spleen                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Congestion                        |   |   |   |   |   | 2 |   | 1 | 2 |   |   |   |   | 1 | 1 | 2 | 3 |   | 1 |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Hematopoietic Cell Proliferation  | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 2 | 2 |   | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 3 |   |  |  |
| Pigmentation                      | 2 | 3 | 3 | 3 | 2 |   | 3 | 2 | 2 |   | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 1 |   |   |   |   |   |   |  |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
+ .. Tissue examined microscopically      M .. Missing tissue  
X .. Lesion present      A .. Autolysis precludes evaluation  
I .. Insufficient tissue      BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
1) Minimal 3) Moderate  
2) Mild 4) Marked

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST                       | FISCHER 344 RATS FEMALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | ANIMAL ID | females<br>(cont...) |  |
|-----------------------------------|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|--|
|                                   | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |           |                      |  |
| 7                                 | 7                       | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 6 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 0         |                      |  |
| 2                                 | 1                       | 3 | 2 | 2 | 3 | 3 | 3 | 4 | 0 | 2 | 2 | 8 | 3 | 5 | 8 | 2 | 3 | 2 | 3 | 3 | 1 | 1 | 2 | 5 | 9 | 0         |                      |  |
| 8                                 | 0                       | 0 | 8 | 8 | 0 | 0 | 0 | 6 | 5 | 8 | 9 | 0 | 0 | 9 | 0 | 8 | 0 | 8 | 0 | 0 | 1 | 4 | 9 | 5 | 9 | 0         |                      |  |
|                                   | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         |                      |  |
|                                   | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         |                      |  |
|                                   | 3                       | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0         |                      |  |
|                                   | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 0         |                      |  |
|                                   | 1                       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 0         |                      |  |
| Capsule, Fibrosis                 | 1                       |   |   |   | 2 |   | 1 |   |   |   |   |   | 1 | 1 |   | 1 | 1 |   |   |   |   |   |   | 1 |   |           |                      |  |
| Capsule, Hypertrophy, Mesothelium |                         |   |   |   | 1 |   |   |   |   |   |   | 1 |   |   |   |   | 1 |   |   |   |   |   |   |   |   |           |                      |  |
| Thymus                            | +                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |           |                      |  |
| Atrophy                           | 2                       | 3 |   | 3 | 2 |   | 3 | 3 | 2 | 2 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 |   | 2 | 3         |                      |  |
| <b>INTEGUMENTARY SYSTEM</b>       |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |
| Mammary Gland                     | +                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         |                      |  |
| Cyst                              |                         |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |
| Hyperplasia                       |                         |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |           |                      |  |
| Skin                              | +                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         |                      |  |
| <b>MUSCULOSKELETAL SYSTEM</b>     |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |
| Bone                              | +                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         |                      |  |
| Hyperostosis                      |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |
| <b>NERVOUS SYSTEM</b>             |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |
| Brain                             | +                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         |                      |  |
| Hemorrhage                        |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |
| Peripheral Nerve                  |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |
| Spinal Cord                       |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |
| <b>RESPIRATORY SYSTEM</b>         |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |
| Lung                              | +                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +         |                      |  |
| Alveolar Epithelium, Hyperplasia  |                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |                      |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>20 MG/KG                     | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |                  |                  |                  |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|------------------|
|   | 0<br>7<br>2<br>8 | 0<br>7<br>1<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>0 | 0<br>6<br>4<br>6 | 0<br>7<br>0<br>5 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>9 | 0<br>6<br>8<br>0 | 0<br>7<br>3<br>0 | 0<br>6<br>5<br>9 | 0<br>6<br>8<br>0 | 0<br>7<br>2<br>8 | 0<br>7<br>3<br>0 | 0<br>6<br>3<br>0 | 0<br>7<br>6<br>1 |           |                      | 0<br>6<br>7<br>4 | 0<br>7<br>7<br>9 | 0<br>6<br>7<br>5 |
| Alveolus, Infiltration Cellular, Histiocyte             |                  |                  |                  | 1                |                  |                  |                  |                  | 1                |                  |                  | 1                |                  |                  |                  | 1                |                  |                  |                  |                  |           | 1                    | 1                | 1                |                  |
| Nose  | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                | +                |
| Foreign Body  |                  |                  |                  |                  | X                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |
| Inflammation  | 1                |                  | 1                |                  | 1                | 1                |                  |                  | 1                |                  | 1                | 1                | 1                |                  |                  |                  | 1                | 1                | 1                |                  |           |                      |                  | 1                | 1                |
| Glands, Olfactory Epithelium, Hyperplasia               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |           | 1                    |                  |                  |                  |
| Glands, Respiratory Epithelium, Dilatation              | 1                | 1                |                  | 2                |                  |                  |                  |                  |                  |                  | 1                | 1                | 1                | 1                |                  |                  | 1                | 1                | 1                | 1                |           | 1                    | 1                |                  | 1                |
| Glands, Respiratory Epithelium, Hyperplasia             |                  |                  |                  |                  |                  |                  | 1                |                  | 1                |                  |                  |                  | 2                | 1                |                  | 2                | 1                |                  |                  | 1                |           | 2                    | 1                |                  | 1                |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory | 2                |                  | 1                | 2                | 2                | 2                | 2                | 2                | 1                |                  | 2                | 2                |                  | 2                |                  | 1                | 2                | 3                | 2                | 2                | 1         |                      | 2                | 2                | 2                |
| Glands, Transitional Epithelium, Hyperplasia            |                  | 1                |                  | 1                |                  |                  |                  |                  |                  | 1                |                  |                  | 1                |                  |                  | 2                |                  |                  |                  | 1                |           |                      | 1                |                  |                  |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     | 1                | 1                | 2                | 1                |                  | 2                | 1                | 1                | 2                | 2                |                  |                  | 2                | 1                |                  | 2                | 1                |                  | 2                | 2                |           | 2                    | 2                |                  | 2                |
| Olfactory Epithelium, Degeneration                      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |           |                      |                  |                  |                  |
| Olfactory Epithelium, Metaplasia, Respiratory           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   | 1                |                  |                  |                  |                  | 1                |                  | 1                |                  |                  |                  |                  | 1                | 1                | 1                | 1                |                  |                  |                  |                  |           |                      |                  | 1                |                  |
| Respiratory Epithelium, Hyperplasia                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  | 1         | 1                    |                  | 2                |                  |
| Transitional Epithelium, Hyperplasia                    | 1                |                  |                  | 1                |                  | 1                |                  |                  |                  | 1                |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  | 1         | 1                    |                  |                  |                  |
| Trachea   | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                | +                |
| <b>SPECIAL SENSES SYSTEM</b>                            |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |
| Eye   | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                | +                |
| Cataract  |                  |                  |                  |                  | 3                |                  | 3                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |
| Retina, Atrophy   |                  |                  |                  |                  | 3                |                  | 3                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |
| Harderian Gland   | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                | +                |
| Inflammation  |                  |                  |                  | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |           |                      |                  |                  |                  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

|                                |                 | DAY ON TEST |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------------|-----------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|                                |                 | 07          | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 |    |
| <b>FISCHER 344 RATS FEMALE</b> |                 | 2           | 1  | 3  | 2  | 2  | 3  | 3  | 3  | 4  | 0  | 2  | 2  | 8  | 3  | 5  | 8  | 2  | 3  | 2  | 3  | 3  | 1  | 1  | 2  | 5  |    |    |
|                                | <b>20 MG/KG</b> | 8           | 0  | 0  | 8  | 8  | 0  | 0  | 0  | 6  | 5  | 8  | 9  | 0  | 0  | 9  | 0  | 8  | 0  | 8  | 0  | 0  | 1  | 4  | 9  |    |    |    |
|                                | ANIMAL ID       | 00          | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
|                                |                 | 33          | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |
|                                |                 | 00          | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 02 | 02 | 02 | 02 | 02 | 02 | 02 |
|                                |                 | 12          | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |

females (cont...)

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Accumulation, Hyaline Droplet                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   | 1 |   |   | 1 |   |   |   |   |  |
| Calculus Micro Observation Only              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |  |
| Infarct                                      |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |  |
| Mineralization                               | 1 |   | 1 | 1 |   | 1 |   |   |   | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 |   |   |   |  |
| Nephropathy                                  |   |   | 1 | 1 | 1 | 1 |   | 1 | 2 | 3 | 1 | 1 |   | 2 | 1 |   | 1 | 1 | 1 | 1 | 1 | 2 |   | 1 | 1 | 1 |   |  |
| Pigmentation                                 | 1 |   | 1 | 1 | 1 |   | 1 | 1 |   | 1 | 1 |   |   | 1 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 1 |   |  |
| Papilla, Fibrosis                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pelvis, Inflammation                         |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 3 | 2 |   |   |   |   |   |   |   |   | 1 |   | 2 |   |  |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 | 2 |   |   |   |   |   |   |   |   | 1 |   | 2 |   |  |
| Urinary Bladder                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>20 MG/KG     | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |      |     |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|------|-----|
|   | 0730        | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  | 0730  |          | 0730  | 0730 |     |
| ANIMAL ID                               | 00326       | 00327 | 00328 | 00329 | 00330 | 00331 | 00332 | 00333 | 00334 | 00335 | 00336 | 00337 | 00338 | 00339 | 00340 | 00341 | 00342 | 00343 | 00344 | 00345 | 00346    | 00347 |      |     |
| Bile Duct, Hyperplasia                  | 1           | 1     | 1     |       | 1     |       | 1     |       | 1     | 1     |       |       |       |       | 1     | 1     |       |       | 1     | 1     |          | 1     | 27   | 1.0 |
| Centrilobular, Degeneration             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1    | 2.0 |
| Hepatocyte, Hypertrophy                 |             | 1     |       |       |       | 1     |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |          |       | 6    | 1.3 |
| Hepatocyte, Necrosis                    |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1    | 2.0 |
| Oval Cell, Hyperplasia                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1     | 2    | 1.5 |
| Mesentery                               | +           |       |       |       |       |       |       |       |       | +     | +     |       |       | +     | +     |       |       |       |       | +     |          |       | 9    |     |
| Fat, Necrosis                           | 3           |       |       |       |       |       |       |       |       | 3     | 3     |       |       | 3     | 3     |       |       |       |       | 3     |          |       | 9    | 3.0 |
| Pancreas                                | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50   |     |
| Cyst                                    |             |       |       |       |       |       |       |       | X     | X     |       |       |       |       |       | X     |       |       |       |       |          |       | 5    |     |
| Infiltration Cellular, Mononuclear Cell |             |       |       |       |       |       |       | 2     | 1     |       | 2     |       | 2     |       | 2     | 2     |       |       | 1     | 1     |          |       | 9    | 1.6 |
| Acinus, Atrophy                         |             |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       | 1     |       |       |       |       |          |       | 9    | 1.2 |
| Salivary Glands                         | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50   |     |
| Stomach, Forestomach                    | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50   |     |
| Hyperplasia, Squamous                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2     | 4    | 1.8 |
| Inflammation                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 2     | 4    | 2.0 |
| Ulcer                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1     | 3    | 2.0 |
| Stomach, Glandular                      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50   |     |
| Inflammation                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 1     | 1    | 1.0 |
| Ulcer                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | 3     | 1    | 3.0 |
| <b>CARDIOVASCULAR SYSTEM</b>            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |      |     |
| Blood Vessel                            | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50   |     |
| Heart                                   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50   |     |
| Cardiomyopathy                          | 1           | 1     |       | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |       | 1     |       | 1     | 1     | 1     | 1     | 1        | 1     | 40   | 1.1 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS FEMALE |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |      |      |      |
|-------------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|
|             | 0730                    | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 | 0730 |          | 0730 |      |      |      |
| 20 MG/KG    | 0026                    | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | 0039 | 0040 | 0041 | 0042 | 0043 | 0044 | 0045 | 0046     | 0047 | 0048 | 0049 | 0050 |

Pigmentation

1 1.0

**ENDOCRINE SYSTEM**

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |        |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Adrenal Cortex             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |        |
| Angiectasis                | 1 | 1 | 1 |   | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 2 |   | 2 | 1 | 1      | 43 1.6 |
| Degeneration, Cystic       |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5 1.0  |        |
| Hyperplasia                |   | 1 | 1 | 1 |   | 2 | 1 | 2 | 1 | 2 | 1 | 1 |   | 1 | 1 |   |   | 1 | 1 | 1 |   | 1 | 2 | 2 | 28 1.5 |        |
| Hypertrophy                |   |   |   | 2 |   |   |   |   | 1 | 2 |   |   |   |   |   |   |   |   |   | 2 |   |   | 3 |   | 12 1.9 |        |
| Vacuolization Cytoplasmic  | 1 | 1 | 1 |   | 1 | 1 |   |   |   |   | 1 |   | 1 |   |   |   | 1 |   | 2 |   | 1 |   | 1 | 2 | 26 1.3 |        |
| Adrenal Medulla            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |        |
| Hyperplasia                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   | 1 3.0  |        |
| Islets, Pancreatic         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |        |
| Parathyroid Gland          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |        |
| Hyperplasia, Focal         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |        |
| Hyperplasia, Diffuse       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   | 2 1.0  |        |
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |        |
| Cyst                       |   |   |   |   |   |   | X | X | X |   |   |   |   | X | X | X |   |   |   |   | X |   | X | X | 15     |        |
| Pars Distalis, Cyst        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | 2      |        |
| Pars Distalis, Hyperplasia | 2 |   |   |   |   |   | 3 |   |   |   |   | 3 |   | 4 | 2 |   | 3 |   |   |   |   |   |   | 2 | 15 2.5 |        |
| Thyroid Gland              | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47     |        |
| C-cell, Hyperplasia        |   | 1 |   |   |   | 1 |   | 1 | 1 |   |   |   |   | 1 | 1 | 1 |   |   |   |   | 1 |   | 1 |   | 15 1.0 |        |

**GENERAL BODY SYSTEM**

NONE

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |          |    |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|----|
|                         | 0730        | 0732 | 0738 | 0697 | 0770 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |      |      | 0777     | 50 |
| 20 MG/KG                | 0026        | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | * TOTALS |    |

**GENITAL SYSTEM**

|                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |       |        |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|--------|
| Clitoral Gland    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |        |
| Cyst              |   | X |   |   | X |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |    | 7     |        |
| Hyperplasia       |   | 2 |   |   | 2 |   |   |   | 2 |   |   |   | 1 |   | 1 | 1 |   |   | 2 |   |   |   |   |    | 6 2.2 |        |
| Inflammation      | 2 | 1 | 2 |   | 1 |   |   |   | 2 |   |   | 1 |   | 1 | 1 |   |   | 2 |   | 1 | 1 | 2 |   | 2  |       | 20 1.5 |
| Ovary             | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |        |
| Cyst              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 5     |        |
| Uterus            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |       |        |
| Decidual Reaction |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 3.0 |        |
| Inflammation      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0 |        |

**HEMATOPOIETIC SYSTEM**

|                                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |        |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Bone Marrow                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Hyperplasia                       |   |   | 3 |   |   | 3 |   |   |   |   | 2 |   |   | 2 |   |   |   |   |   |   |   |   | 3 |    | 18 2.7 |
| Lymph Node                        |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2      |
| Mediastinal, Ectasia              |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1 2.0  |
| Lymph Node, Mandibular            | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |    | 0      |
| Lymph Node, Mesenteric            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Infiltration Cellular, Histiocyte | 1 | 1 | 1 | 1 | 1 |   | 2 | 3 | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 2 |    | 35 1.2 |
| Spleen                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |        |
| Congestion                        | 2 |   |   |   | 1 |   | 1 |   | 1 | 2 | 1 |   | 1 | 1 | 2 | 1 | 2 |   | 1 |   |   | 1 |   |    | 26 1.3 |
| Hematopoietic Cell Proliferation  | 1 | 2 | 2 |   | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 |    | 47 1.9 |
| Pigmentation                      | 1 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 4 | 2 |    | 47 2.5 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
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 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST                       | FISCHER 344 RATS FEMALE |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |       |      |     |     |     |
|-----------------------------------|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|------|-----|-----|-----|
|                                   | 0730                    | 0732  | 0738  | 0739  | 0730  | 0732  | 0738  | 0739  | 0730  | 0732  | 0738  | 0739  | 0730  | 0732  | 0738  | 0739  | 0730  | 0732  | 0738  | 0739  |          | 0730  | 0732  | 0738  | 0739 |     |     |     |
| ANIMAL ID                         | 00326                   | 00337 | 00338 | 00339 | 00300 | 00301 | 00302 | 00303 | 00304 | 00305 | 00306 | 00307 | 00308 | 00309 | 00310 | 00311 | 00312 | 00313 | 00314 | 00315 | 00316    | 00317 | 00318 | 00319 |      |     |     |     |
| Capsule, Fibrosis                 |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      |     |     |     |
| Capsule, Hypertrophy, Mesothelium |                         |       |       |       |       |       | 1     | 1     |       |       |       |       |       |       | 1     |       |       |       | 1     |       |          | 1     | 1     | 1     |      |     |     |     |
| Thymus                            | +                       | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50    |      |     |     |     |
| Atrophy                           | 2                       | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 3     | 3     | 2     |       |       | 2     | 2     | 2     | 3     | 2     |       | 2     | 2        | 2     | 3     | 2     | 3    | 2   |     |     |
| <b>INTEGUMENTARY SYSTEM</b>       |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      |     |     |     |
| Mammary Gland                     | +                       | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50    |      |     |     |     |
| Cyst                              |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          | X     |       |       | 3    |     |     |     |
| Hyperplasia                       |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       | 2    | 1.0 |     |     |
| Skin                              | +                       | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50   |     |     |     |
| <b>MUSCULOSKELETAL SYSTEM</b>     |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      |     |     |     |
| Bone                              | +                       | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50   |     |     |     |
| Hyperostosis                      |                         |       |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       |          |       |       |       |      | 1   | 2.0 |     |
| <b>NERVOUS SYSTEM</b>             |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      |     |     |     |
| Brain                             | +                       | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50   |     |     |     |
| Hemorrhage                        |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      | 3   | 1   | 3.0 |
| Peripheral Nerve                  |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      |     | 1   |     |
| Spinal Cord                       |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      |     | 1   |     |
| <b>RESPIRATORY SYSTEM</b>         |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      |     |     |     |
| Lung                              | +                       | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | +     | 50   |     |     |     |
| Alveolar Epithelium, Hyperplasia  |                         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |       |      |     | 2   | 2.0 |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>20 MG/KG                     | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |       |        |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|--------|
|   | 0730        | 0733  | 0738  | 0739  | 0730  | 0733  | 0738  | 0739  | 0730  | 0733  | 0738  | 0739  | 0730  | 0733  | 0738  | 0739  | 0730  | 0733  | 0738  | 0739  |          | 0730  | 0733  | 0738   |
| ANIMAL ID   | 00326       | 00337 | 00338 | 00339 | 00340 | 00341 | 00342 | 00343 | 00344 | 00345 | 00346 | 00347 | 00348 | 00349 | 00350 | 00351 | 00352 | 00353 | 00354 | 00355 | 00356    | 00357 | 00358 | 00359  |
| Alveolus, Infiltration Cellular, Histiocyte             |             |       | 1     |       |       |       |       |       |       |       |       |       |       |       | 1     |       | 1     |       |       |       |          |       | 1     |        |
| Nose  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50     |
| Foreign Body  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1      |
| Inflammation  |             |       | 1     | 1     | 1     |       |       |       |       |       |       |       | 2     |       | 2     |       | 1     | 2     |       |       |          | 1     | 1     | 22 1.1 |
| Glands, Olfactory Epithelium, Hyperplasia               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1     | 4 1.0  |
| Glands, Respiratory Epithelium, Dilatation              |             |       | 1     |       |       | 1     | 1     | 1     |       | 1     | 1     |       | 1     | 1     |       |       |       | 2     |       | 1     | 1        | 1     | 1     | 27 1.1 |
| Glands, Respiratory Epithelium, Hyperplasia             |             |       |       |       | 2     |       | 1     |       |       | 2     |       |       |       |       | 1     | 1     | 1     |       | 1     | 1     |          | 2     | 1     | 22 1.3 |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory | 1           | 2     | 2     | 1     | 2     | 2     | 2     | 2     |       | 2     | 2     | 2     | 2     | 2     | 2     | 2     | 1     | 2     | 2     | 1     | 1        | 2     | 2     | 44 1.8 |
| Glands, Transitional Epithelium, Hyperplasia            |             |       |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       | 1        | 1     | 1     | 12 1.2 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet     | 1           | 1     | 2     |       | 2     | 2     | 1     | 1     | 2     | 1     | 1     | 2     | 2     | 2     | 1     | 2     | 2     |       | 1     | 2     |          | 2     | 2     | 38 1.6 |
| Olfactory Epithelium, Degeneration                      |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 1 1.0  |
| Olfactory Epithelium, Metaplasia, Respiratory           |             |       |       |       |       |       |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |          |       |       | 1 2.0  |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   |             | 1     | 2     |       | 1     | 1     |       |       | 2     | 1     | 1     | 1     |       |       | 1     | 1     | 1     |       | 1     | 1     |          | 1     | 1     | 23 1.1 |
| Respiratory Epithelium, Hyperplasia                     |             |       | 1     | 1     |       | 1     |       |       |       |       |       | 1     |       |       |       |       |       |       |       | 1     | 1        |       | 1     | 11 1.1 |
| Transitional Epithelium, Hyperplasia                    |             |       |       |       |       |       |       | 1     |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 6 1.0  |
| Trachea   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50     |
| <b>SPECIAL SENSES SYSTEM</b>                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       |        |
| Eye   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50     |
| Cataract  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 3 3.0  |
| Retina, Atrophy   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 3 3.0  |
| Harderian Gland   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | +     | 50     |
| Inflammation  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       |       | 2 1.0  |

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 + .. Tissue examined microscopically  
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 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>20 MG/KG | DAY ON TEST |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | * TOTALS |      |      |      |      |
|-------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|
|                                     | 0730        | 0732 | 0738 | 0739 | 0730 | 0732 | 0738 | 0739 | 0730 | 0732 | 0738 | 0739 | 0730 | 0732 | 0738 | 0739 | 0730 | 0732 | 0738 | 0739 |          | 0730 | 0732 | 0738 | 0739 |
| ANIMAL ID                           | 0026        | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0000 | 0001 | 0002 | 0003 | 0004 | 0005 | 0006     | 0007 | 0008 | 0009 |      |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Accumulation, Hyaline Droplet                |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   | 5 1.0  |
| Calculus Micro Observation Only              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Infarct                                      |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   | 2 |   |   |   |   |   | 3 |   | 5 2.0  |
| Mineralization                               |   | 1 | 1 | 1 | 1 |   |   | 1 | 1 |   | 1 | 1 |   | 1 | 1 |   | 1 | 1 | 1 |   |   | 1 | 1 | 1 | 35 1.1 |
| Nephropathy                                  |   |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   | 1 | 2 |   | 1 |   | 1 | 1 | 1 | 1 | 1 | 38 1.2 |
| Pigmentation                                 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 43 1.0 |
| Papilla, Fibrosis                            |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   | 1 1.0  |
| Pelvis, Inflammation                         |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 3 |   |   | 2 |   |   |   |   |   |   | 2 | 9 2.0  |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 3 |   |   | 2 |   |   |   |   |   | 2 |   | 8 2.0  |
| Urinary Bladder                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

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 1) Minimal 3) Moderate  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

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 Lab: BAT

|                         |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                      |
|-------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------------------|
| FISCHER 344 RATS FEMALE | DAY ON TEST | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 06 | 06 | 06 | 07 | 07 | 07 | 05 | 07 | 03 | 04 | 07 | 00 | 05 | 07 | 07 | 07 | females<br>(cont...) |
|                         | ANIMAL ID   | 14 | 29 | 79 | 28 | 28 | 22 | 33 | 94 | 65 | 22 | 81 | 38 | 23 | 90 | 33 | 29 | 81 | 71 | 84 | 12 | 42 | 99 | 22 | 90 |                      |
| 60 MG/KG                | ANIMAL ID   | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |                      |

ALIMENTARY SYSTEM

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum<br>Parasite Metazoan | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum                    | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum                     | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis                                  |   |   | 1 | 2 |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |
| Basophilic Focus                             |   |   |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   | X |
| Clear Cell Focus                             |   | X | X | X |   |   | X | X |   |   | X | X | X |   |   | X |   |   | X |   | X | X | X |   |
| Degeneration, Cystic                         |   | 1 | 1 |   |   | 1 |   |   |   |   |   | 2 |   | 1 |   |   |   |   | X |   | X | X | 1 | 1 |
| Eosinophilic Focus                           |   | X | X | X |   |   | X | X |   |   | X | X | X | X |   | X | X |   |   |   |   | X | X | X |
| Fatty Change, Focal                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1 |   |
| Fatty Change, Diffuse                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hematopoietic Cell Proliferation             | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Hepatodiaphragmatic Nodule                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Inflammation                                 |   | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 |   | 1 | 1 | 1 |   | 1 | 1 |   |   |   | 1 | 1 | 1 |
| Mixed Cell Focus                             |   | X | X | X |   |   |   |   | X |   |   | X | X | X |   | X |   |   | X |   | X | X | X | X |
| Bile Duct, Cyst                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |

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 + .. Tissue examined microscopically  
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
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Date Report Requested: 02/28/2011  
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 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>60 MG/KG     | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |  |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|--|
|   | 0<br>7<br>1<br>4 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>0 | 0<br>7<br>3<br>4 | 0<br>7<br>9<br>5 | 0<br>7<br>8<br>0 | 0<br>7<br>8<br>1 | 0<br>7<br>8<br>2 | 0<br>7<br>8<br>3 | 0<br>7<br>8<br>4 | 0<br>7<br>9<br>0 | 0<br>7<br>9<br>1 | 0<br>7<br>8<br>2 | 0<br>7<br>7<br>3 | 0<br>7<br>7<br>4 | 0<br>7<br>2<br>1 | 0<br>7<br>4<br>2 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>0 |           |                      |  |
| Bile Duct, Fibrosis                     | 1                | 2                | 1                | 1                |                  | 1                |                  | 1                |                  | 2                | 1                | 1                | 1                |                  |                  | 1                |                  | 1                |                  | 1                | 1                |                  | 1                | 1                | 1         |                      |  |
| Bile Duct, Hyperplasia                  | 1                | 1                | 2                | 2                | 1                |                  | 1                | 1                | 1                | 2                | 2                | 1                | 2                | 1                | 1                | 1                | 1                | 2                | 1                | 1                | 2                |                  | 1                | 2                | 2         | 1                    |  |
| Centrilobular, Degeneration             | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |
| Hepatocyte, Hypertrophy                 | 3                | 2                |                  |                  |                  |                  | 1                | 2                | 2                |                  | 1                | 1                |                  |                  | 1                | 1                |                  | 1                |                  | 1                |                  | 1                |                  | 1                | 1         |                      |  |
| Hepatocyte, Necrosis                    |                  | 1                |                  | 1                |                  |                  |                  |                  |                  | 3                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |
| Oval Cell, Hyperplasia                  | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |
| Mesentery                               |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |
| Fat, Necrosis                           |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |
| Pancreas                                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         |                      |  |
| Cyst                                    |                  | X                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | X                |                  |                  |           |                      |  |
| Infiltration Cellular, Mononuclear Cell |                  | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |                  |                  |                  | 2                |                  |                  |                  | 1                |           |                      |  |
| Acinus, Atrophy                         |                  |                  |                  |                  |                  |                  |                  | 2                |                  | 1                |                  |                  |                  | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |
| Acinus, Hyperplasia                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1         |                      |  |
| Salivary Glands                         | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         |                      |  |
| Stomach, Forestomach                    | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         |                      |  |
| Hyperplasia, Squamous                   |                  |                  |                  |                  | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |
| Inflammation                            |                  |                  |                  |                  | 3                |                  | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |
| Ulcer                                   |                  |                  |                  |                  | 3                |                  | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |
| Stomach, Glandular                      | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         |                      |  |
| Tongue                                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |  |

**CARDIOVASCULAR SYSTEM**

|              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
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 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST                | FISCHER 344 RATS FEMALE |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |                  |                  |                  |                  |
|----------------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|------------------|------------------|
|                            | 0<br>7<br>1<br>4        | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>3 | 0<br>7<br>2<br>0 | 0<br>6<br>9<br>4 | 0<br>6<br>8<br>5 | 0<br>6<br>8<br>2 | 0<br>6<br>8<br>1 | 0<br>7<br>2<br>8 | 0<br>7<br>3<br>0 | 0<br>7<br>2<br>9 | 0<br>5<br>3<br>3 | 0<br>7<br>2<br>8 | 0<br>3<br>4<br>1 | 0<br>4<br>7<br>1 |           |                      | 0<br>7<br>2<br>8 | 0<br>0<br>1<br>4 | 0<br>5<br>2<br>2 | 0<br>7<br>2<br>9 |
| Heart                      | +                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Cardiomyopathy             | 1                       |                  | 1                | 1                | 2                | 1                | 1                | 1                | 1                | 1                |                  | 1                | 1                | 1                | 1                | 1                | 1                | 1                |                  | 1                |           | 1                    | 1                | 1                | 1                |                  |
| Thrombosis                 | 3                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| <b>ENDOCRINE SYSTEM</b>    |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Adrenal Cortex             | +                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Angiectasis                | 2                       | 1                | 2                | 1                |                  |                  | 1                |                  |                  | 1                | 2                |                  | 2                | 3                | 2                |                  | 2                | 2                | 1                | 2                |           | 1                    | 1                | 1                | 1                |                  |
| Degeneration, Cystic       | 2                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Hyperplasia                | 2                       |                  | 1                |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |                  | 1                |                  | 1                |                  |                  |                  |           |                      | 2                |                  | 2                |                  |
| Hypertrophy                |                         |                  |                  |                  |                  |                  |                  | 1                | 1                |                  | 2                |                  |                  |                  |                  |                  | 1                |                  | 1                |                  |           |                      |                  | 2                |                  |                  |
| Necrosis                   |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Vacuolization Cytoplasmic  | 2                       | 2                | 2                | 1                | 2                | 1                |                  | 2                | 1                | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  | 1                | 1                |                  |
| Adrenal Medulla            | +                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Hyperplasia                |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1         | 3                    |                  |                  |                  |                  |
| Islets, Pancreatic         | +                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Parathyroid Gland          | +                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Hyperplasia, Diffuse       | 1                       |                  |                  |                  | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 2                |           |                      |                  | 1                |                  |                  |
| Pituitary Gland            | +                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Cyst                       |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           | X                    |                  |                  |                  |                  |
| Pars Distalis, Angiectasis |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| Pars Distalis, Cyst        |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | X         |                      |                  |                  |                  |                  |
| Pars Distalis, Hyperplasia | 3                       |                  | 2                | 2                | 3                |                  | 1                |                  |                  |                  |                  |                  |                  | 2                |                  |                  |                  |                  |                  |                  |           |                      |                  |                  | 4                |                  |
| Thyroid Gland              | +                       |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |
| C-cell, Hyperplasia        |                         |                  |                  |                  |                  | 2                |                  |                  |                  | 1                |                  |                  | A                |                  |                  |                  | 1                |                  |                  |                  |           |                      |                  |                  |                  |                  |

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST                       | FISCHER 344 RATS FEMALE |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | ANIMAL ID | females<br>(cont...) |                  |                  |                  |                  |                  |                  |                  |
|-----------------------------------|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                   | 0<br>7<br>1<br>4        | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>0 | 0<br>7<br>3<br>4 | 0<br>7<br>3<br>5 | 0<br>7<br>3<br>6 | 0<br>7<br>3<br>7 | 0<br>7<br>3<br>8 | 0<br>7<br>3<br>9 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>2 | 0<br>7<br>3<br>3 | 0<br>7<br>3<br>4 | 0<br>7<br>3<br>5 |           |                      | 0<br>7<br>3<br>6 | 0<br>7<br>3<br>7 | 0<br>7<br>3<br>8 | 0<br>7<br>3<br>9 | 0<br>7<br>3<br>0 | 0<br>7<br>3<br>1 | 0<br>7<br>3<br>2 |
| Infiltration Cellular, Histiocyte | 1                       | 2                | 1                | 1                |                  |                  | 1                | 1                |                  | 1                | 2                | 1                | 1                | 1                | 2                |                  | 2                |                  | 1                |                  | 2         | 3                    | 1                |                  |                  |                  |                  |                  |                  |
| Spleen                            | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                |                  |                  |                  |                  |                  |                  |
| Congestion                        |                         |                  |                  |                  |                  |                  | 2                | 2                | 2                |                  |                  |                  |                  | 2                | 2                |                  | 2                |                  | 1                | 2                |           | 1                    | 1                | 1                | 1                |                  |                  |                  |                  |
| Hematopoietic Cell Proliferation  | 3                       | 2                | 2                | 2                | 3                |                  | 1                | 2                | 1                |                  | 1                | 1                | 1                | 2                | 2                | 1                | 2                | 1                | 1                | 2                |           | 1                    | 1                | 2                | 2                |                  |                  |                  |                  |
| Pigmentation                      | 1                       | 2                | 2                | 2                | 3                | 1                | 2                | 2                | 3                | 3                | 3                | 2                | 3                | 2                | 3                | 3                | 2                | 3                | 2                | 2                |           | 2                    | 2                | 2                | 3                |                  |                  |                  |                  |
| Capsule, Fibrosis                 |                         | 1                | 2                | 1                | 2                |                  | 2                | 1                | 2                | 2                | 1                | 1                |                  |                  | 1                | 1                | 1                |                  | 1                | 1                |           | 2                    | 1                | 1                | 1                |                  |                  |                  |                  |
| Capsule, Hypertrophy, Mesothelium |                         |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  | 1                |                  | 1                |                  |                  |                  | 1                | 1                |           |                      |                  | 1                |                  |                  |                  |                  |                  |
| Lymphoid Follicle, Atrophy        |                         |                  |                  |                  |                  |                  | 3                |                  | 3                | 4                | 3                | 3                | 2                | 2                |                  | 2                | 2                | 2                |                  | 2                | 3         | 2                    |                  | 3                |                  |                  |                  |                  |                  |
| Thymus                            | +                       | +                | +                | +                | +                | M                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | M                | +                | +         | +                    | +                | +                |                  |                  |                  |                  |                  |
| Atrophy                           | 3                       | 2                | 2                | 2                | 3                |                  | 2                | 2                | 2                | 3                | 2                | 2                | 2                | 3                | 2                | 3                | 2                | 3                |                  | 2                | 2         |                      | 2                | 3                | 2                |                  |                  |                  |                  |
| <b>INTEGUMENTARY SYSTEM</b>       |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |                  |                  |                  |
| Mammary Gland                     | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |                  |                  |                  |                  |                  |
| Skin                              | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |                  |                  |                  |                  |                  |
| <b>MUSCULOSKELETAL SYSTEM</b>     |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |                  |                  |                  |
| Bone                              | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |                  |                  |                  |                  |                  |
| <b>NERVOUS SYSTEM</b>             |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |                  |                  |                  |
| Brain                             | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |                  |                  |                  |                  |                  |
| <b>RESPIRATORY SYSTEM</b>         |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  |                  |                  |                  |                  |                  |                  |
| Lung                              | +                       | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +                | +         | +                    | +                | +                |                  |                  |                  |                  |                  |
| Congestion                        |                         |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                |                  |                  |                  |                  |                  |                  |                  |                  |           |                      |                  | 3                |                  |                  |                  |                  |                  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
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 1) Minimal 3) Moderate  
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| FISCHER 344 RATS FEMALE<br><br>60 MG/KG                 | DAY ON TEST      |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | females<br>(cont...) |                  |                  |                  |                  |   |   |   |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|------------------|------------------|------------------|------------------|---|---|---|
|   | 0<br>7<br>1<br>4 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>8 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>0 | 0<br>7<br>3<br>4 | 0<br>6<br>9<br>5 | 0<br>6<br>8<br>2 | 0<br>6<br>8<br>1 | 0<br>6<br>8<br>8 | 0<br>7<br>2<br>3 | 0<br>7<br>3<br>9 | 0<br>5<br>2<br>3 | 0<br>7<br>2<br>9 | 0<br>3<br>8<br>1 | 0<br>4<br>7<br>8 | 0<br>7<br>2<br>4 |                      | 0<br>0<br>1<br>2 | 0<br>5<br>2<br>9 | 0<br>7<br>2<br>9 | 0<br>7<br>2<br>0 |   |   |   |
|   | ANIMAL ID        |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Inflammation  | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Alveolar Epithelium, Hyperplasia                        | 2                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Alveolus, Infiltration Cellular, Histiocyte             | 1                |                  |                  |                  |                  |                  | 1                |                  |                  | 1                |                  |                  | 1                |                  |                  | 1                |                  |                  | 1                |                  |                      | 1                |                  |                  |                  |   |   |   |
| Nose  | +                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Foreign Body  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | X                |                      |                  |                  |                  |                  |   |   |   |
| Inflammation  | 1                | 1                | 2                | 1                | 1                | 2                | 2                | 1                | 2                | 2                | 2                | 2                | 2                | 2                | 1                | 1                | 2                | 2                | 1                | 1                |                      |                  |                  | 2                | 1                | 1 | 2 |   |
| Glands, Hyperplasia                                     |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Glands, Olfactory Epithelium, Dilatation                | 3                | 3                | 3                | 3                | 3                | 3                | 3                | 2                | 2                | 3                | 2                | 2                | 2                | 3                | 2                | 2                | 2                | 2                | 2                | 3                |                      |                  |                  | 2                | 2                | 3 | 3 |   |
| Glands, Olfactory Epithelium, Hyperplasia               | 3                | 2                | 2                | 2                | 2                | 2                | 2                | 3                | 1                | 1                | 1                | 2                | 2                | 2                | 2                | 2                | 2                | 1                | 2                | 2                |                      |                  |                  | 1                | 2                | 2 | 2 |   |
| Glands, Olfactory Epithelium, Metaplasia                | 1                | 2                | 2                | 1                | 2                | 2                | 1                | 2                | 2                | 1                |                  |                  |                  | 2                | 2                | 2                | 1                | 1                | 1                | 1                |                      |                  |                  | 1                | 1                | 2 | 1 |   |
| Glands, Olfactory Epithelium, Necrosis                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Glands, Respiratory Epithelium, Dilatation              | 1                | 1                | 1                | 1                | 1                | 1                | 1                | 2                | 1                | 1                | 1                | 2                | 1                | 1                | 1                | 1                | 1                | 2                |                  |                  |                      | 1                | 1                | 1                | 1                |   |   |   |
| Glands, Respiratory Epithelium, Hyperplasia             | 1                | 1                | 3                | 3                | 3                | 1                | 2                | 1                | 2                | 2                | 2                | 2                | 2                | 1                | 3                | 1                | 2                | 1                | 1                | 1                |                      |                  |                  | 1                | 1                | 1 | 1 |   |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory | 2                | 3                | 2                | 2                | 3                | 2                | 2                | 2                | 1                | 1                | 2                | 2                | 3                | 1                | 3                | 1                | 3                | 2                | 2                | 2                |                      |                  |                  | 1                | 2                | 2 | 2 |   |
| Glands, Transitional Epithelium, Dilatation             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Glands, Transitional Epithelium, Hyperplasia            |                  |                  |                  |                  |                  |                  |                  |                  |                  | 1                | 2                | 1                | 2                |                  |                  |                  | 2                | 2                | 1                | 1                |                      |                  |                  | 1                | 1                | 1 |   |   |
| Nerve, Atrophy  |                  |                  |                  |                  |                  |                  | 1                | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Olfactory Epithelium, Degeneration                      | 3                | 2                | 2                | 2                | 3                | 3                | 3                | 2                | 2                | 3                | 3                | 2                | 2                | 2                | 2                | 1                | 1                |                  |                  |                  | 1                    | 2                | 1                | 2                | 2                | 2 |   |   |
| Olfactory Epithelium, Hyperplasia, Basal Cell           | 1                | 1                | 1                | 1                |                  |                  |                  | 2                | 1                | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Olfactory Epithelium, Metaplasia, Respiratory           | 1                | 1                | 1                | 1                |                  |                  |                  | 2                | 1                | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Olfactory Epithelium, Metaplasia, Squamous              |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Respiratory Epithelium, Hyperplasia                     | 1                | 1                | 3                | 3                | 3                | 1                | 2                | 1                |                  |                  |                  | 1                | 1                | 1                | 1                |                  |                  |                  | 1                | 2                | 1                    | 1                | 1                | 1                | 1                | 1 | 1 | 1 |
| Transitional Epithelium, Degeneration                   |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Transitional Epithelium, Hyperplasia                    | 1                |                  |                  |                  | 1                | 1                | 1                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Trachea   | +                |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                      |                  |                  |                  |                  |   |   |   |
| Inflammation  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  | 2                |                      |                  |                  |                  |                  |   |   |   |

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2) Mild 4) Marked





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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
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 Lab: BAT

|   |             |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |                      |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------------------|
| FISCHER 344 RATS FEMALE<br><br>60 MG/KG | DAY ON TEST | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 06 | 06 | 06 | 06 | 07 | 07 | 07 | 05 | 07 | 03 | 04 | 07 | 00 | 05 | 07 | 07 | 07 | females<br>(cont...) |
|   | ANIMAL ID   | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 00 | 01 | 02 | 03 | 04 | 05 |                      |
|   |             | 4  | 9  | 9  | 9  | 8  | 8  | 9  | 0  | 4  | 5  | 2  | 1  | 8  | 0  | 9  | 3  | 9  | 1  | 1  | 8  | 4  | 4  | 2  | 2  | 9  |                      |

Inflammation

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|-------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|                         | 0729        | 0384  | 0730  | 0631  | 0722  | 0468  | 0583  | 0729  | 0779  | 0771  | 0656  | 0565  | 0773  | 0773  | 0722  | 0771  | 0727  | 0672  | 0459  | 0722  | 0612  | 0767  | 0776  | 0777  |          |
| 60 MG/KG                | 00376       | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 | 00399 | 50       |

**ALIMENTARY SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus                        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Cecum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Colon           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Large, Rectum          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Parasite Metazoan                |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 3      |
| Intestine Small, Duodenum        | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Ileum           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Intestine Small, Jejunum         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Liver                            | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 49     |
| Angiectasis                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 5 1.4  |
| Basophilic Focus                 |   | X |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 6      |
| Clear Cell Focus                 | X |   | X | X |   |   |   | X | X |   | X |   |   | X | X | X | X |   | X | X |   | X | X | X | 29     |
| Degeneration, Cystic             |   |   | 2 |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 10 1.2 |
| Eosinophilic Focus               | X |   | X |   |   |   | X | X | X | X | X | X |   |   | X | X | X |   | X | X |   | X | X | X | 32     |
| Fatty Change, Focal              |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   | 4 1.3  |
| Fatty Change, Diffuse            |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Hematopoietic Cell Proliferation |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 1.0  |
| Hepatodiaphragmatic Nodule       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   | 3      |
| Inflammation                     | 2 |   | 1 |   | 1 |   |   | 1 | 1 | 1 | 1 | 1 |   |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 39 1.1 |
| Mixed Cell Focus                 | X |   | X |   |   |   |   | X | X |   | X |   |   |   | X | X | X |   | X |   | X |   | X | X | 26     |
| Bile Duct, Cyst                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
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 I .. Insufficient tissue  
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TDMS No. 20107 - 03  
 Test Type: CHRONIC  
 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>60 MG/KG     | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |      |      |     |     |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|------|-----|-----|
|   | 0729        | 0834  | 0730  | 0631  | 0722  | 0468  | 0583  | 0792  | 0779  | 0771  | 0655  | 0667  | 0573  | 0773  | 0773  | 0772  | 0777  | 0672  | 0465  | 0722  |          | 0676 | 0777 |     |     |
| ANIMAL ID                               | 00376       | 00378 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370 | 00370    |      |      |     |     |
| Bile Duct, Fibrosis                     | 1           | 1     | 1     |       |       |       | 1     |       |       |       |       |       |       | 2     | 1     | 1     |       | 1     |       |       | 1        | 2    | 27   | 1.1 |     |
| Bile Duct, Hyperplasia                  | 2           |       | 2     | 2     |       | 1     | 1     | 1     | 1     | 1     | 2     |       | 1     | 2     | 2     | 2     | 1     | 2     |       | 1     | 1        | 2    | 2    | 43  | 1.5 |
| Centrilobular, Degeneration             |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      |      | 1   | 2.0 |
| Hepatocyte, Hypertrophy                 | 1           |       | 1     |       |       |       | 1     |       |       |       | 1     |       |       |       | 1     | 1     | 3     |       |       | 1     |          |      | 22   | 1.3 |     |
| Hepatocyte, Necrosis                    |             |       |       |       |       |       |       |       |       | 3     |       |       |       |       |       |       | 1     |       |       |       |          |      | 5    | 1.8 |     |
| Oval Cell, Hyperplasia                  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      | 1    | 1.0 |     |
| Mesentery                               |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      |      |     |     |
| Fat, Necrosis                           |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      | 3    |     |     |
|   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      | 3    | 3.0 |     |
| Pancreas                                | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +    | 50   |     |     |
| Cyst                                    |             |       |       |       |       |       |       |       |       |       |       | X     |       |       |       |       | X     |       |       |       |          | X    | 5    |     |     |
| Infiltration Cellular, Mononuclear Cell |             |       |       |       |       |       |       |       |       | 2     |       | 1     | 1     |       | 1     |       | 1     |       |       |       |          |      | 9    | 1.2 |     |
| Acinus, Atrophy                         |             |       |       |       |       |       |       |       |       | 3     |       |       | 1     |       |       | 1     |       | 2     |       |       |          |      | 7    | 1.6 |     |
| Acinus, Hyperplasia                     |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      | 1    | 1.0 |     |
| Salivary Glands                         | +           | M     | +     | M     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +    | 48   |     |     |
| Stomach, Forestomach                    | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +    | 50   |     |     |
| Hyperplasia, Squamous                   |             |       |       |       |       |       |       |       |       | 2     |       |       |       |       |       |       | 2     | 3     |       |       |          |      | 4    | 2.3 |     |
| Inflammation                            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      | 2    | 2.5 |     |
| Ulcer                                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      | 2    | 2.5 |     |
| Stomach, Glandular                      | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +    | 50   |     |     |
| Tongue                                  | +           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      | 2    |     |     |
| <b>CARDIOVASCULAR SYSTEM</b>            |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |      |      |     |     |
| Blood Vessel                            | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +    | 50   |     |     |

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 N,N-Dimethyl-p-toluidine  
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| FISCHER 344 RATS FEMALE<br>60 MG/KG | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |
|-------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
|                                     | 0729        | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  | 0729  |          | 0729  |
| ANIMAL ID                           | 00376       | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376 | 00376    | 00376 |

|                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Heart          | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Cardiomyopathy | 1 |   | 1 |   | 1 | 2 |   | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 42 1.1 |
| Thrombosis     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |

**ENDOCRINE SYSTEM**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |        |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Adrenal Cortex            | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 49     |        |
| Angiectasis               | 1 |   | 2 |   | 1 |   | 2 | 1 | 1 |   | 2 | 2 |   |   | 1 | 1 | 1 |   | 1 | 1 |   | 2 | 2      | 34 1.5 |
| Degeneration, Cystic      |   |   | 1 |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   | 3 2.0  |        |
| Hyperplasia               | 1 |   |   |   |   |   |   | 1 |   |   | 1 |   |   |   |   |   | 2 |   | 2 |   |   |   | 12 1.4 |        |
| Hypertrophy               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   | 1 | 8 1.4  |        |
| Necrosis                  |   |   |   |   |   |   |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   |   | 1 2.0  |        |
| Vacuolization Cytoplasmic | 2 |   |   |   | 1 |   |   | 1 |   | 1 | 1 |   |   |   |   |   | 2 | 1 |   |   |   |   | 18 1.4 |        |

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 49    |
| Hyperplasia     |   |   |   |   |   |   |   |   |   | 2 | 1 |   |   |   |   |   |   |   |   |   |   | 2 | 5 1.8 |

|                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Parathyroid Gland    | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | 46    |
| Hyperplasia, Diffuse |   |   |   |   |   |   |   |   |   |   | 1 |   |   |   |   |   |   |   |   |   |   |   | 5 1.4 |

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Pituitary Gland            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Cyst                       |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | X |   |   | X |   |   | 4      |
| Pars Distalis, Angiectasis |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Pars Distalis, Cyst        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Pars Distalis, Hyperplasia | 3 |   |   |   |   |   | 3 |   | 3 |   | 2 | 1 |   |   |   | 2 |   | 3 | 4 |   | 3 | 3 | 17 2.6 |

|                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Thyroid Gland       | + | M | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | 45    |
| C-cell, Hyperplasia |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 |   | 4 1.5 |

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 Route: GAVAGE  
 Species/Strain: RATS/F 344/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>60 MG/KG | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |
|-------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
|                                     | 0729        | 0384  | 0730  | 0610  | 0729  | 0458  | 0577  | 0777  | 0777  | 0665  | 0566  | 0565  | 0777  | 0777  | 0777  | 0777  | 0666  | 0644  | 0776  | 0676  | 0777  | 0677  | 0722  | 0676  |          |
| ANIMAL ID                           | 00376       | 00378 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396 | 00397 | 00398 | 00399 |          |
|                                     | 0           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |          |

**GENERAL BODY SYSTEM**

NONE

**GENITAL SYSTEM**

|                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Clitoral Gland                   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Cyst                             |   |   | X |   |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5      |
| Hyperplasia                      |   |   |   |   | 2 |   |   |   |   |   |   |   |   |   |   | 3 | 2 |   |   |   |   |   |   | 4 2.0  |
| Inflammation                     | 1 |   |   | 1 |   |   |   |   |   |   |   |   | 1 |   | 1 | 1 |   |   |   | 1 |   |   |   | 15 1.1 |
| Ovary                            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Uterus                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Hemorrhage                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 3.0  |
| Cervix, Cyst                     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Endometrium, Hyperplasia, Cystic |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2 3.0  |

**HEMATOPOIETIC SYSTEM**

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |        |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow            | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50     |
| Hyperplasia            | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 49 2.6 |
| Myelofibrosis          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Lymph Node             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1      |
| Mediastinal, Ectasia   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 3.0  |
| Lymph Node, Mandibular | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0      |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 49     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| FISCHER 344 RATS FEMALE<br>60 MG/KG | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | * TOTALS              |                       |                       |                       |                       |                  |     |
|-------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|-----|
|                                     | 0<br>7<br>2<br>9      | 0<br>3<br>8<br>4      | 0<br>7<br>3<br>0      | 0<br>6<br>1<br>0      | 0<br>7<br>2<br>9      | 0<br>4<br>6<br>8      | 0<br>5<br>8<br>3      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>7<br>2<br>9      | 0<br>6<br>2<br>5      | 0<br>5<br>4<br>7      | 0<br>6<br>7<br>0      | 0<br>5<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>3<br>0      | 0<br>7<br>2<br>8      | 0<br>6<br>0<br>7      | 0<br>4<br>5<br>9      | 0<br>7<br>2<br>0      |                       |                       | 0<br>6<br>1<br>2      | 0<br>7<br>0<br>6      | 0<br>7<br>0<br>9      | 0<br>7<br>2<br>1 |     |
| ANIMAL ID                           | 0<br>0<br>3<br>7<br>6 | 0<br>0<br>3<br>7<br>7 | 0<br>0<br>3<br>7<br>8 | 0<br>0<br>3<br>7<br>9 | 0<br>0<br>3<br>8<br>0 | 0<br>0<br>3<br>8<br>1 | 0<br>0<br>3<br>8<br>2 | 0<br>0<br>3<br>8<br>3 | 0<br>0<br>3<br>8<br>4 | 0<br>0<br>3<br>8<br>5 | 0<br>0<br>3<br>8<br>6 | 0<br>0<br>3<br>8<br>7 | 0<br>0<br>3<br>8<br>8 | 0<br>0<br>3<br>8<br>9 | 0<br>0<br>3<br>9<br>0 | 0<br>0<br>3<br>9<br>1 | 0<br>0<br>3<br>9<br>2 | 0<br>0<br>3<br>9<br>3 | 0<br>0<br>3<br>9<br>4 | 0<br>0<br>3<br>9<br>5 | 0<br>0<br>3<br>9<br>6 | 0<br>0<br>3<br>9<br>7 | 0<br>0<br>3<br>9<br>8 | 0<br>0<br>3<br>9<br>9 | 0<br>0<br>3<br>9<br>0 |                  |     |
| Infiltration Cellular, Histiocyte   | 1                     | 3                     |                       |                       | 1                     | 1                     | 2                     | 1                     |                       | 2                     | 2                     |                       | 3                     | 2                     | 1                     |                       |                       | 1                     | 1                     |                       | 1                     | 1                     |                       |                       | 33                    | 1.5              |     |
| Spleen                              | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |                  |     |
| Congestion                          | 2                     | 1                     | 2                     | 2                     | 3                     |                       |                       | 2                     | 1                     |                       |                       | 1                     |                       | 2                     | 3                     | 2                     | 2                     |                       |                       | 2                     |                       |                       | 2                     | 2                     | 28                    | 1.8              |     |
| Hematopoietic Cell Proliferation    | 2                     | 1                     | 2                     | 1                     | 2                     | 2                     | 3                     | 2                     | 2                     | 2                     | 2                     |                       | 1                     | 2                     |                       | 2                     |                       |                       | 2                     | 2                     |                       |                       | 2                     | 2                     | 42                    | 1.7              |     |
| Pigmentation                        | 2                     | 3                     | 3                     | 3                     | 2                     | 2                     | 1                     | 2                     | 2                     | 2                     | 1                     | 2                     | 3                     | 2                     | 2                     | 2                     | 2                     | 3                     | 2                     | 2                     | 2                     | 2                     | 2                     | 3                     | 49                    | 2.2              |     |
| Capsule, Fibrosis                   | 1                     |                       | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     | 1                     |                       | 1                     |                       | 1                     | 1                     | 1                     | 2                     | 2                     | 2                     | 2                     | 1                     | 1                     | 2                     | 2                     | 41                    | 1.3              |     |
| Capsule, Hypertrophy, Mesothelium   | 1                     |                       |                       |                       | 1                     | 1                     |                       | 1                     | 1                     | 1                     | 1                     |                       |                       |                       |                       | 1                     | 2                     | 1                     |                       |                       |                       |                       |                       | 16                    | 1.1                   |                  |     |
| Lymphoid Follicle, Atrophy          | 1                     | 2                     |                       | 2                     | 2                     | 3                     | 2                     | 2                     | 3                     |                       |                       |                       | 2                     |                       | 4                     |                       | 2                     |                       | 2                     | 3                     |                       | 2                     |                       | 28                    | 2.4                   |                  |     |
| Thymus                              | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 48                    |                       |                  |     |
| Atrophy                             | 3                     | 2                     | 3                     |                       | 2                     | 3                     | 2                     | 3                     | 3                     | 3                     | 3                     | 3                     | 2                     | 2                     | 2                     | 2                     | 2                     | 2                     | 3                     |                       | 3                     | 2                     |                       | 2                     | 3                     | 44               | 2.4 |
| <b>INTEGUMENTARY SYSTEM</b>         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |     |
| Mammary Gland                       | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |                  |     |
| Skin                                | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |                  |     |
| <b>MUSCULOSKELETAL SYSTEM</b>       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |     |
| Bone                                | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |                  |     |
| <b>NERVOUS SYSTEM</b>               |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |     |
| Brain                               | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |                  |     |
| <b>RESPIRATORY SYSTEM</b>           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                  |     |
| Lung                                | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | 50                    |                  |     |
| Congestion                          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 2                     | 2.0              |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

| FISCHER 344 RATS FEMALE<br>60 MG/KG                     | DAY ON TEST |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | * TOTALS |       |        |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|--------|
|   | 0729        | 0840  | 0730  | 0610  | 0779  | 0458  | 0779  | 0779  | 0779  | 0656  | 0565  | 0665  | 0575  | 0777  | 0777  | 0777  | 0777  | 0672  | 0464  | 0776  |          | 0767  | 0777   |
| ANIMAL ID   | 00376       | 00377 | 00378 | 00379 | 00380 | 00381 | 00382 | 00383 | 00384 | 00385 | 00386 | 00387 | 00388 | 00389 | 00390 | 00391 | 00392 | 00393 | 00394 | 00395 | 00396    | 00397 |        |
| Inflammation  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1 1.0  |
| Alveolar Epithelium, Hyperplasia                        |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 2 1.5  |
| Alveolus, Infiltration Cellular, Histiocyte             | 1           | 1     |       |       | 1     |       |       |       |       |       | 1     | 1     |       |       | 1     |       |       | 1     | 1     |       |          |       | 17 1.0 |
| Nose  | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | A     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 49     |
| Foreign Body  | X           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | X        |       | 4      |
| Inflammation  | 1           |       | 2     | 2     | 1     |       | 1     | 2     |       | 1     | 2     | 2     |       | 2     | 1     | 1     | 1     | 2     | 2     | 1     | 1        | 1     | 45 1.5 |
| Glands, Hyperplasia                                     |             |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       |       |       |       |       |       |          |       | 1 1.0  |
| Glands, Olfactory Epithelium, Dilatation                | 3           | 1     | 2     | 2     | 2     | 2     | 2     | 3     | 2     | 3     | 3     |       | 2     | 2     | 3     | 2     | 3     | 2     | 2     | 2     | 2        | 2     | 48 2.4 |
| Glands, Olfactory Epithelium, Hyperplasia               | 2           | 1     | 2     | 1     | 2     | 1     | 2     | 2     | 2     | 3     | 2     |       | 2     | 2     | 3     | 2     | 3     | 2     | 2     | 1     | 2        | 2     | 47 1.9 |
| Glands, Olfactory Epithelium, Metaplasia                | 1           | 1     | 1     |       | 2     | 1     | 1     | 1     | 1     | 1     | 1     |       | 1     | 1     | 1     | 2     | 2     | 1     | 1     |       | 1        | 1     | 42 1.3 |
| Glands, Olfactory Epithelium, Necrosis                  |             |       |       | 3     |       | 2     |       | 2     |       |       |       |       |       | 3     |       |       |       |       | 3     | 3     | 3        | 3     | 18 2.8 |
| Glands, Respiratory Epithelium, Dilatation              | 1           | 1     | 1     | 2     | 1     | 1     | 1     | 1     | 1     | 1     | 1     |       | 2     | 1     | 1     | 2     | 2     | 1     | 1     | 1     | 2        | 1     | 47 1.2 |
| Glands, Respiratory Epithelium, Hyperplasia             | 1           | 1     | 2     | 2     | 1     | 1     | 1     | 1     |       | 1     | 2     | 2     |       | 2     | 1     | 1     | 1     | 1     | 2     | 2     |          | 2     | 45 1.6 |
| Glands, Respiratory Epithelium, Metaplasia, Respiratory |             | 2     | 2     | 2     | 2     | 1     | 1     | 2     | 2     | 1     | 1     | 2     |       | 2     | 2     | 3     | 2     | 3     | 2     | 3     | 2        | 2     | 47 2.0 |
| Glands, Transitional Epithelium, Dilatation             | 2           |       | 2     |       |       |       |       |       |       |       |       |       |       |       |       | 1     |       | 1     |       |       |          | 1     | 9 1.4  |
| Glands, Transitional Epithelium, Hyperplasia            |             | 1     |       | 2     | 1     | 2     | 2     |       |       |       |       | 2     |       | 1     | 1     |       |       |       |       | 2     | 2        | 1     | 24 1.4 |
| Nerve, Atrophy  |             |       |       |       | 2     |       |       |       |       | 3     |       |       |       |       |       |       |       |       |       |       |          |       | 4 1.8  |
| Olfactory Epithelium, Degeneration                      | 2           |       | 2     | 2     | 2     | 1     | 2     | 2     | 1     | 3     | 3     |       | 2     | 2     | 2     | 1     | 2     | 2     | 2     | 3     | 3        | 1     | 46 2.0 |
| Olfactory Epithelium, Hyperplasia, Basal Cell           |             | 1     |       | 1     | 1     | 1     | 1     |       |       | 2     |       |       |       | 1     |       |       | 1     | 1     | 1     | 1     | 1        | 1     | 25 1.2 |
| Olfactory Epithelium, Metaplasia, Respiratory           |             |       | 1     |       | 1     |       |       |       | 1     |       | 3     | 2     |       |       |       | 1     |       | 1     | 1     |       | 1        |       | 21 1.2 |
| Olfactory Epithelium, Metaplasia, Squamous              |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 2 1.5  |
| Respiratory Epithelium, Accumulation, Hyaline Droplet   |             |       |       |       |       |       | 1     |       |       | 1     |       |       |       |       |       |       |       |       |       |       |          |       | 2 1.0  |
| Respiratory Epithelium, Hyperplasia                     | 1           |       | 1     | 1     | 2     | 1     | 1     | 1     | 1     | 1     | 1     |       | 1     | 2     | 1     | 1     | 2     | 2     | 1     | 1     | 2        | 1     | 41 1.3 |
| Transitional Epithelium, Degeneration                   |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1 1.0  |
| Transitional Epithelium, Hyperplasia                    | 1           |       |       | 1     | 1     | 1     | 1     |       |       | 1     | 1     | 2     |       | 1     | 2     | 1     | 1     | 2     |       |       | 1        | 1     | 33 1.1 |
| Trachea   | +           | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +     | +        | +     | 50     |
| Inflammation  |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |          |       | 1 2.0  |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 N,N-Dimethyl-p-toluidine  
 CAS Number: 99-97-8

Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

| DAY ON TEST | FISCHER 344 RATS FEMALE |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | * TOTALS |   |   |   |
|-------------|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|
|             | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |          | 0 | 0 |   |
| 7           | 3                       | 7 | 6 | 7 | 4 | 5 | 7 | 7 | 7 | 6 | 5 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 4 | 7 | 6        | 7 | 7 |   |
| 2           | 8                       | 3 | 1 | 2 | 6 | 8 | 2 | 2 | 0 | 2 | 4 | 7 | 3 | 3 | 3 | 2 | 1 | 2 | 0 | 5 | 2        | 1 | 0 | 2 |
| 9           | 4                       | 0 | 0 | 9 | 8 | 3 | 9 | 9 | 1 | 5 | 7 | 0 | 7 | 0 | 0 | 8 | 4 | 8 | 7 | 9 | 0        | 2 | 6 | 1 |
| ANIMAL ID   | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 | 0 |
| 0           | 0                       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0        | 0 | 0 | 0 |
| 3           | 3                       | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3        | 3 | 3 | 4 |
| 7           | 7                       | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9        | 9 | 9 | 0 |
| 6           | 7                       | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7        | 8 | 9 | 0 |

Inflammation, Suppurative Perforation 1 1 1.0  
 1

**SPECIAL SENSES SYSTEM**

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |   |    |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|----|
| Ear                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |     |   |    |
| Eye                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | 50 |
| Cornea, Degeneration |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 2.0 |   |    |
| Retina, Atrophy      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 3.0 |   |    |
| Harderian Gland      | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | + | 50 |
| Inflammation         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1.0 |   |    |
| Lacrimal Gland       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |     |   |    |

**URINARY SYSTEM**

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |     |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|-----|-----|
| Kidney                                       | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | +   | 50  |     |
| Accumulation, Hyaline Droplet                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 1.0 |     |     |     |
| Cyst   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 |     |     |     |     |
| Infarct                                      |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   | 3   | 2   | 3.0 |     |
| Mineralization                               |   |   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1   | 1   | 37  |     |
| Nephropathy                                  | 1 | 2 | 4 | 1 | 1 | 2 | 1 | 4 | 2 | 1 | 2 | 2 | 3 | 2 | 4 | 2 | 1 | 1 | 1 | 1 | 1 | 1   | 41  |     |     |
| Pigmentation                                 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1   | 1   | 49  |     |
| Papilla, Necrosis                            |   |   |   |   |   |   |   |   |   |   | 3 |   |   |   |   |   |   |   |   |   |   | 1   | 3.0 |     |     |
| Pelvis, Dilatation                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 | 2.0 |     |     |     |
| Pelvis, Inflammation                         |   |   |   |   |   |   |   |   |   |   | 3 | 2 | 3 |   |   |   |   |   |   |   |   |     |     | 5   | 2.6 |
| Pelvis, Transitional Epithelium, Hyperplasia |   |   |   |   |   |   |   |   |   |   | 2 | 2 | 3 |   |   |   |   |   |   |   |   |     |     | 6   | 2.0 |
| Urinary Bladder                              | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | +   | +   | 50  |     |

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue

M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked



TDMS No. 20107 - 03  
 Test Type: CHRONIC  
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL  
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Date Report Requested: 02/28/2011  
 Time Report Requested: 11:17:44  
 First Dose M/F: 10/20/04 / 10/21/04  
 Lab: BAT

|  |                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
|--|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
|  |                                | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
|  | DAY ON TEST                    | 7 | 3 | 7 | 6 | 7 | 4 | 5 | 7 | 7 | 7 | 6 | 5 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 4 | 7 | 6 | 7 | 7 | 7               |
|  | <b>FISCHER 344 RATS FEMALE</b> | 2 | 8 | 3 | 1 | 2 | 6 | 8 | 2 | 2 | 0 | 2 | 4 | 7 | 3 | 3 | 3 | 2 | 1 | 2 | 0 | 5 | 2 | 1 | 0 | 2 | 2               |
|  | <b>60 MG/KG</b>                | 9 | 4 | 0 | 0 | 9 | 8 | 3 | 9 | 9 | 1 | 5 | 7 | 0 | 7 | 0 | 0 | 8 | 4 | 8 | 7 | 9 | 0 | 2 | 6 | 1 |                 |
|  |                                | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
|  | ANIMAL ID                      | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0               |
|  |                                | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4               |
|  |                                | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0               |
|  |                                | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |                 |
|  |                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>* TOTALS</b> |
|  | Inflammation                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>1 1.0</b>    |

\*\*\* END OF REPORT \*\*\*

\* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + .. Tissue examined microscopically  
 X .. Lesion present  
 I .. Insufficient tissue  
 M .. Missing tissue  
 A .. Autolysis precludes evaluation  
 BLANK .. Not examined microscopically  
 1-4 .. Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked